HITACHI

SERVICE MANUAL

NTSC

AP24 Chassis

PA

No. 0015

60SX2K

R/C:CLU-950GR
CLU-609

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CAUTION: Before servicing this chassis, it is important that the service technician read the "Safety Precaution" and "Product Safety Notices" in this Service Manual.

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly preformed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.
WARNING
Lead in solder used in this product is listed by the California Health and Welfare agency as a known reproductive toxicant which may cause birth defects or other reproductive harm (California Health and Safety Code, Section 25249.5).
When servicing or handling circuit boards and other components which contain lead in solder, avoid unprotected skin contact with the solder. Also, when soldering do not inhale any smoke or fumes produced.

SAFETY NOTICE
USE ISOLATION TRANSFORMER WHEN SERVICING

Components having special safety characteristics are identified by ⚠ on the schematics and on the parts list in this Service Data and its supplements and bulletins. Before servicing this chassis, it is important that the service technician read and follow the "Safety Precautions" and "Product Safety Notices" in this Service Manual.

* For continued x-radiation protection, replace picture tube with original type or Hitachi approved equivalent type.

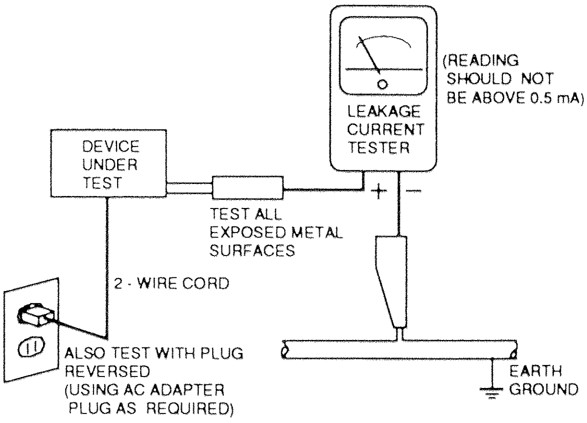
SPECIFICATIONS AND PARTS ARE SUBJECT TO CHANGE FOR IMPROVEMENT

PROJECTION COLOR TELEVISION

July 1992 HHEA - MANUFACTURING DIVISION

SAFETY PRECAUTIONS

1. Before returning an instrument to the customer, always make a safety check of the entire instrument, including, but not limited to the following items:
   a. Be sure that no built-in protective devices are defective and/or have been defeated during servicing. (1) Protective shields are provided on this chassis to protect both the technician and the customer. Correctly replace all missing protective shields, including any removed for servicing convenience. (2) When reinstalling the chassis and/or other assembly in the cabinet, be sure to put back in place all protective devices, including, but not limited to, nonmetallic control knobs, insulating fishpapers, adjustment and compartment covers/shields, and isolation resistor/capacitor networks. **Do not operate this instrument or permit it to be operated without all protective devices correctly installed and functioning. Servicers who defeat safety features or fail to perform safety checks may be liable for any resulting damage.**
   b. Be sure that there are no cabinet openings through which an adult or child might be able to insert their fingers and contact a hazardous voltage. Such openings include, but are not limited to, (1) spacing between the picture tube and the cabinet mask, (2) excessively wide cabinet ventilation slots, and (3) an improperly fitted and/or incorrectly secured cabinet back cover.
   c. **Antenna Cold Check** — With the instrument AC plug removed from any AC source, connect an electrical jumper across the two AC plug prongs. Place the instrument AC switch in the on position. Connect one lead of an ohmmeter to the AC plug prongs tied together and touch the other ohmmeter lead in turn to each tuner antenna input exposed terminal screw and, if applicable, to the coaxial connector. If the measured resistance is less than 1.0 megohms or greater than 12 megohms, an abnormality exists that must be corrected before the instrument is returned to the customer. Repeat this test with the instrument AC switch in the off position.
   d. **Leakage Current Hot Check** — With the instrument completely reassembled, plug the AC line cord directly into a 120 V AC outlet. (Do not use an isolation transformer during this test.) Use a leakage current tester or a metering system that complies with American National Standards Institute (ANSI) C101.0 Leakage Current for Appliances and Underwriters Laboratories (UL) 1410, (50.7). With the instrument AC switch first in the on position and then in the off position, measure from a known earth ground (metal waterpipe, conduit, etc.) to all exposed metal parts of the instrument (antennas, handle bracket, metal cabinet, screwheads, metallic overlays, control shafts, etc.), especially any exposed metal parts that offer an electrical return path to the chassis. Any current measured must not exceed 0.5 milliamps. Reverse the instrument power cord plug in the outlet and repeat test.

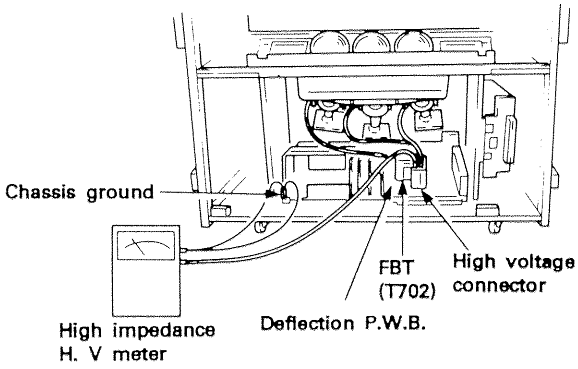

(READING SHOULD NOT BE ABOVE 0.5 mA)
LEAKAGE CURRENT TESTER
DEVICE UNDER TEST
+
−
TEST ALL EXPOSED METAL SURFACES
2 - WIRE CORD
ALSO TEST WITH PLUG REVERSED (USING AC ADAPTER PLUG AS REQUIRED)
EARTH GROUND

AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS SPECIFIED HEREIN INDICATE A POTENTIAL SHOCK HAZARD THAT MUST BE ELIMINATED BEFORE RETURNING THE INSTRUMENT TO THE CUSTOMER OR BEFORE CONNECTING THE ANTENNA OR ACCESSORIES.

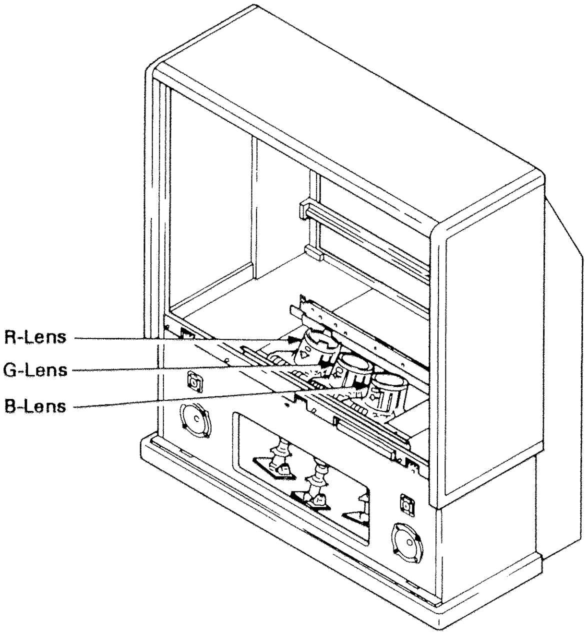
   e. **High Voltage** — This receiver is provided with a hold down circuit for clearly indicating that voltage has increased in excess of a predetermined value. Comply with all notes described in this Service Manual regarding this hold down circuit when servicing, so that this hold down circuit may correctly be operated.
   f. **Serviceman warning** – With minimum Brightness and Contrast, operating high voltage in this receiver is lower than **33.6kV.** In case any component having influenced on high voltage is replaced, confirm that high voltage with minimum Brightness and Contrast is lower than **33.6kV.**
   To measure H.V. use a high impedance H.V. meter. Connect (–) to chassis earth and (+) to the CRT anode button. (See the following connection diagram).

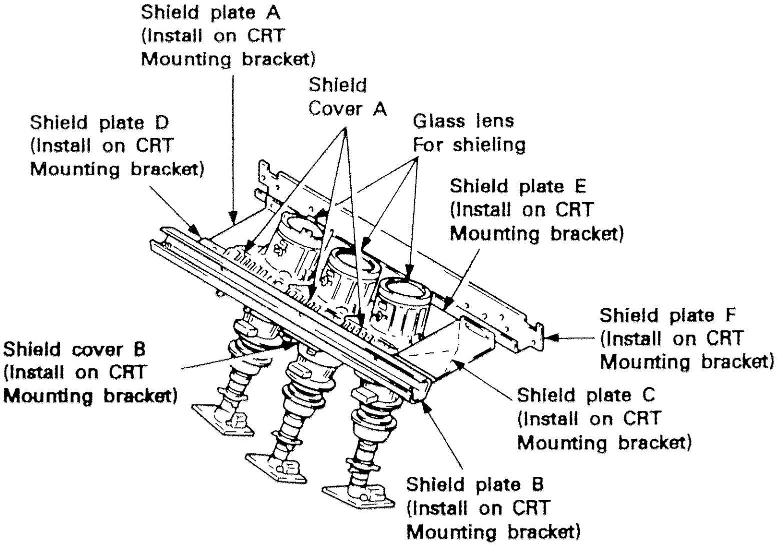
Note: Turn power switch off without fail before the connection with Anode button is made.



g. **X-radiation — TUBE:** The primary source of X radiation in this receiver is the picture tube. The tube utilized for the above mentioned function in this chassis is specially constructed to limit X radiation emissions.
For continued X radiation protection, the replacement tube must be the same type as the original, HITACHI approved type.
When troubleshooting and making test measurements in a receiver with a problem of excessive high voltage, avoid being unnecessarily close to the picture tube and the high voltage component.
Do not operate the chassis longer than is necessary to locate the cause of excessive voltage.

h. **X-radiation Shield —**
1) This receiver is provided X-ray shield plates for the protection of X-radiation. Do not remove X-ray shield **plates A, B, C, D, E, F and shield covers A, B shown in Fig. 1 unnecessarily, when troubleshooting and/or making test measurements.**
2) To prevent X-radiation, after replacement of picture tube and lens, confirm these components to be fixed correctly to bracket and cabinet, and not to be taken off easily.


R-Lens
G-Lens
B-Lens


Shield plate A
(Install on CRT
Mounting bracket)
Shield
Cover A
Glass lens
For shieling
Shield plate D
(Install on CRT
Mounting bracket)
Shield plate E
(Install on CRT
Mounting bracket)
Shield plate F
(Install on CRT
Mounting bracket)
Shield cover B
(Install on CRT
Mounting bracket)
Shield plate C
(Install on CRT
Mounting bracket)
Shield plate B
(Install on CRT
Mounting bracket)

Detailling X-radiation shields

Fig. 1

2. Read and comply with all caution and safety-related notes on or inside the receiver cabinet, on the receiver chassis, or on the picture tube.

3. **Design Alteration Warning** — Do not alter or add to the mechanical or electrical design of this TV receiver. Design alterations and additions, including, but not limited to, circuit modifications and the addition of items such as auxiliary audio and/or video output connections, might alter the safety characteristics of this receiver and create a hazard to the user. Any design alterations or additions may void the manufacturer's warranty and may make you, the servicer responsible for personal injury or property damage resulting therefrom.

4. **Picture Tube Implosion Protection Warning** — The picture tube in this receiver employs integral implosion protection. For continued implosion protection, replace the picture tube only with one of the same type number. Do not remove, install, or otherwise handle the picture tube in any manner without first putting on shatterproof goggles equipped with side shields. People not so equipped must be kept safely away while picture tubes are handled. Keep the picture tube away from your body. Do not handle the picture tube by its neck.

5. **Hot Chassis Warning** — **a**. Some TV receiver chassis are electrically connected directly to one conductor of the AC power cord and may be safely serviced without an isolation transformer only if the AC power plug is inserted so that the chassis is connected to the ground side of the AC power source. To confirm that the AC power plug is inserted correctly, with an AC voltmeter measure between the chassis and a known earth ground. If a voltage reading in excess of 1.0 V is obtained, remove and reinsert the AC power plug in the opposite polarity and again measure the voltage potential between the chassis and a known earth ground. **b**. Some TV receiver chassis normally have 85 V AC (RMS) between chassis and earth ground regardless of the AC plug polarity. These chassis can be safely serviced only with an isolation transformer inserted in the power line between the receiver and the AC power source, for both personnel and test equipment protection. **c**. Some TV receiver chassis have a secondary ground system in addition to the main chassis ground. This secondary ground system is not isolated from the AC power line. The two ground systems are electrically separated by insulating material that must not be defeated or altered.

6. Observe original lead dress. Take extra care to assure correct lead dress in the following areas: **a**. near sharp edges, **b**. near thermally hot parts — be sure that leads and components do not touch thermally hot parts, **c**. the AC supply, **d**. high voltage, and **e**. antenna wiring. Always inspect in all areas for pinched, out-of-plate, or frayed wiring. Do not change spacing between components, and between components and the printed-circuit board. Check AC power cord for damage.

7. Components, parts, and/or wiring that appear to have overheated or are otherwise damaged should be replaced with components, parts, or wiring that meet original specifications. Additionally, determine the cause of overheating and/or damage and, if necessary, take corrective action to remove any potential safety hazard.

8. **PRODUCT SAFETY NOTICE** — Many TV electrical and mechanical parts have special safety-related characteristics some of which are often not evident from visual inspection, nor can the protection they give necessarily be obtained by replacing them with components rated for higher voltage, wattage, etc. Parts that have special safety characteristics are identified Hitachi service data by shading on schematics and by a (⚠) in the parts list. Use of a substitute replacement that does not have the same safety characteristics as the recommended replacement part in Hitachi service data parts list might create shock, fire, and/or other hazards. Product safety is under review continuously and new instructions are issued whenever appropriate. For the latest information, always consult the appropriate current Hitachi service literature. A subscription to, or additional copies of Service literature may be obtained at a normal charge from Hitachi.

SERVICING PRECAUTIONS

CAUTION: Before servicing instruments covered by this service data and its supplements and addenda, read and follow the SAFETY PRECAUTIONS on page 2 of this publication.
NOTE: If unforeseen circumstances create conflict between the following servicing precautions and any of the safety precautions on page 2 of this publication, always follow the safety precautions. Remember: Safety First.

General Servicing Precautions

1. Always unplug the instrument AC power cord from the AC power source before:
   a. Removing or reinstalling any component, circuit board, module, or any other instrument assembly.
   b. Disconnecting or reconnecting any instrument electrical plug or other electrical connection.
   c. Connecting a test substitute in parallel with an electrolytic capacitor in the instrument.
   Caution: A wrong part substitution or incorrect polarity installation of electrolytic capacitors may result in an explosion hazard.
   d. Discharging the picture tube anode.
2. Test high voltage only by measuring it with an appropriate high voltage meter or other voltage measuring device (DVM, FETVOM, etc.) equipped with a suitable high voltage probe. Do not test high voltage by "drawing an arc".
   The H.V. Distribution Box has an internal 400MΩ resistor (bleeder resistor) connected from the high voltage to ground. After power is removed from the instrument the high voltage will discharge through the high voltage bleeder resistor. If the tubes have high voltage after power is removed then the bleeder resistor is defective or the bleeder ground is disconnected.
3. Discharge the picture tubes anode at any of the R, G, or B outputs on the High Voltage distribution box only by (a) first connecting one end of an insulated clip lead to the degaussing or kine aquadag grounding system shield at the point where the picture tube socket ground lead is connected, and then (b) touch the other end of the insulated clip lead to the picture tube high voltage distribution box R, G, or B output, using an insulating handle to avoid personal contact with high voltage.
4. Do not spray chemical on or near this instrument or any of its assemblies.
5. Unless specified otherwise in these service data, clean electrical contacts by applying the following mixture to the contacts with a pipe cleaner, cotton-tipped stick or comparable nonabrasive applicator: 10% (by volume) Acetone and 90% (by volume) isopropyl alcohol (90% - 99% strength).
   Caution: This is a flammable mixture.
   Unless specified otherwise in these service data, lubrication of contacts is not required.
6. Do not defeat any plug/socket B+ voltage interlocks with which instruments covered by this service data might be equipped.
7. Do not apply AC power to this instrument and/or any of its electrical assemblies unless all solid-state device heat sinks are correctly installed.
8. Always connect the test instrument ground lead to the appropriate instrument chassis ground before connecting the test instrument positive lead. Always remove the test instrument ground lead last.
9. Use with this instrument only the test fixtures specified in this service data.
   CAUTION: Do not connect the test fixture ground strap to any heatsink in this instrument.

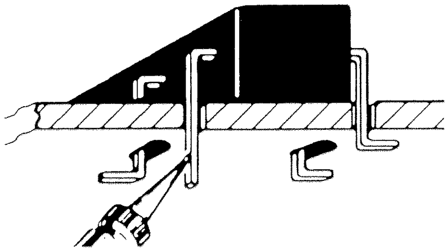
Electrostatically Sensitive (ES) Devices

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static type solder removal device. Some solder removal devices not classified as "anti-static" can generate electrical charges sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material.)
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.
   CAUTION: Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.
8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device.)

General Soldering Guidelines

1. Use a grounded-tip, low-wattage soldering iron and appropriate tip size and shape that will maintain tip temperature within the range 500°F to 600°F.
2. Use an appropriate gauge of resin-core solder composed of 60 parts tin/40 parts lead.
3. Keep the soldering iron tip clean and well tinned.
4. Thoroughly clean the surfaces to be soldered. Use a small wire-bristle (0.5 inch, or 1.25 cm) brush with a metal handle. Do not use freon-propelled spray-on cleaners.
5. Use the following unsoldering technique.
   a. Allow the soldering iron tip to reach normal temperature (500°F to 600°F).
   b. Heat the component lead until the solder melts. Quickly draw away the melted solder with an antistatic, suction-type solder removal device or with solder braid.
   CAUTION: Work quickly to avoid overheating the circuit board printed foil.
6. Use the following soldering technique:
   a. Allow the soldering iron tip to reach normal temperature (500°F to 600°F).
   b. First, hold the soldering iron tip and solder strand against the component lead until the solder melts.
   c. Quickly move the soldering iron tip to the junction of the component lead and the printed circuit foil, and hold it there only until the solder flows onto and around both the component lead and the foil.
   CAUTION: Work quickly to avoid overheating the circuit board printed foil or components.
   d. Closely inspect the solder area and remove any excess or splashed solder with a small wire-bristle brush.



Use Soldering Iron To Pry Leads

IC Removal/Replacement

Some Hitachi unitized chassis circuit boards have slotted holes (oblong) through which the IC leads are inserted and then bent flat against the circuit foil. When holes are the slotted type, the following technique should be used to remove and replace the IC. When working with boards using the familiar round hole, use the standard technique as outlined in paragraphs 5 and 6 above.

Removal

1. Desolder and straighten each IC lead in one operation by gently prying up on the lead with the soldering iron tip as the solder melts.
2. Draw away the melted solder with an anti-static suction-type solder removal device (or with solder braid) before removing the IC.

Replacement

1. Carefully insert the replacement IC in the circuit board.
2. Carefully bend each IC lead against the circuit foil pad and solder it.
3. Clean the soldered areas with a small wire-bristle brush. (It is not necessary to reapply acrylic coating to the areas.)

"Small-signal" Discrete Transistor Removal/Replacement

1. Remove the defective transistor by clipping its leads as close as possible to the component body.
2. Bend into a "U" shape the end of each of three leads remaining on the circuit board.
3. Bend into a "U" shape the replacement transistor leads.
4. Connect the replacement transistor leads to the corresponding leads extending from the circuit board and crimp the "U" with long nose pliers to insure metal to metal contact, then solder each connection.

Power Output Transistor Devices Removal/Replacement

1. Heat and remove all solder from around the transistor leads.
2. Remove the heatsink mounting screw (if so equipped).
3. Carefully remove the transistor from the circuit board.
4. Insert new transistor in circuit board.
5. Solder each transistor lead, and clip off excess lead.
6. Replace heatsink.

Diode Removal/Replacement

1. Remove defective diode by clipping its leads as close as possible to diode body.
2. Bend the two remaining leads perpendicularly to the circuit board.
3. Observing diode polarity, wrap each lead out of the new diode around the corresponding lead on the circuit board.
4. Securely crimp each connection and solder it.
5. Inspect (on the circuit board copper side) the solder joints of the two "original" leads. If they are not shiny, reheat them and, if necessary, apply additional solder.

Fuse and Conventional Resistor Removal/Replacement

1. Clip each fuse or resistor lead at top of circuit board hollow stake.
2. Securely crimp leads of replacement component around stake 1/8 inch from top.
3. Solder the connections.

   CAUTION: Maintain original spacing between the replaced component and adjacent components and the circuit board, to prevent excessive component temperatures.

Circuit Board Foil Repair

Excessive heat applied to the copper foil of any printed circuit board will weaken the adhesive that bonds the foil to the circuit board, causing the foil to separate from, or "lift-off", the board. The following guidelines and procedures should be followed whenever this condition is encountered.

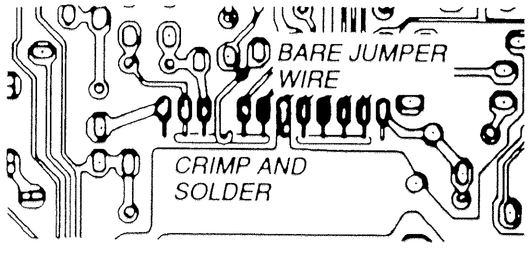
In Critical Copper Pattern Areas

High component/copper pattern density and/or special voltage/current characteristics make the spacing and integrity of copper pattern in some circuit board areas more critical than in others. The circuit foil in these areas is designated as Critical Copper Pattern and is identified and illustrated in this service data in the section titled Safety Related Copper Pattern (see table of contents for page number). Because Critical Copper Pattern requires special soldering techniques to ensure the maintenance of reliability and safety standards, contact your Hitachi personnel.

At IC Connections

To repair defective copper pattern at IC connections, use the following procedure to install a jumper wire on the copper pattern side of the circuit board. (Use this technique only on IC connections.)

1. Carefully remove the damaged copper pattern with a sharp knife. (Remove only as much copper as absolutely necessary.)
2. Carefully scratch away the solder resist and acrylic coating (if used) from the end of the remaining copper pattern.

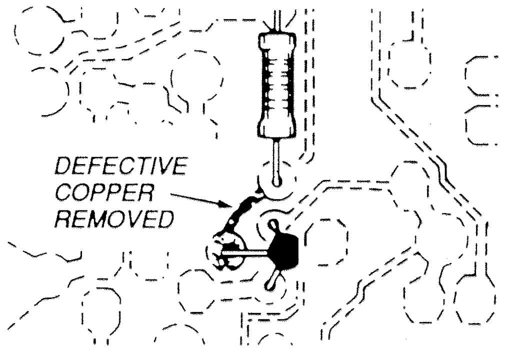


Install Jumper Wire and Solder

3. Bend a small "U" in one end of a small-gauge jumper wire and carefully crimp it around the IC pin. Solder the IC connection.
4. Route the jumper wire along the path of the cut-away copper pattern and let it overlap the previously scraped end of the good copper pattern. Solder the overlapped area, and clip off any excess jumper wire.

At Other Connections

Use the following technique to repair defective copper pattern at connections other than IC Pins. This technique involves the installation of a jumper wire on the component side of the circuit board.



Insulated Jumper Wire

1. Remove the defective copper pattern with a sharp knife. Remove at least 1/4 inch of copper, to ensure that a hazardous condition will not exist if the jumper wire opens.
2. Trace along the copper pattern from both sides of the pattern break and locate the nearest component that is directly connected to the affected copper pattern.
3. Connect insulated 20-gauge jumper wirer from the lead of the nearest component on one side of the pattern break to the lead of the nearest component on the other side. Carefully crimp and solder the connections.

   CAUTION: Be sure the insulated jumper wirer is dressed so that it does not touch components or sharp edges.

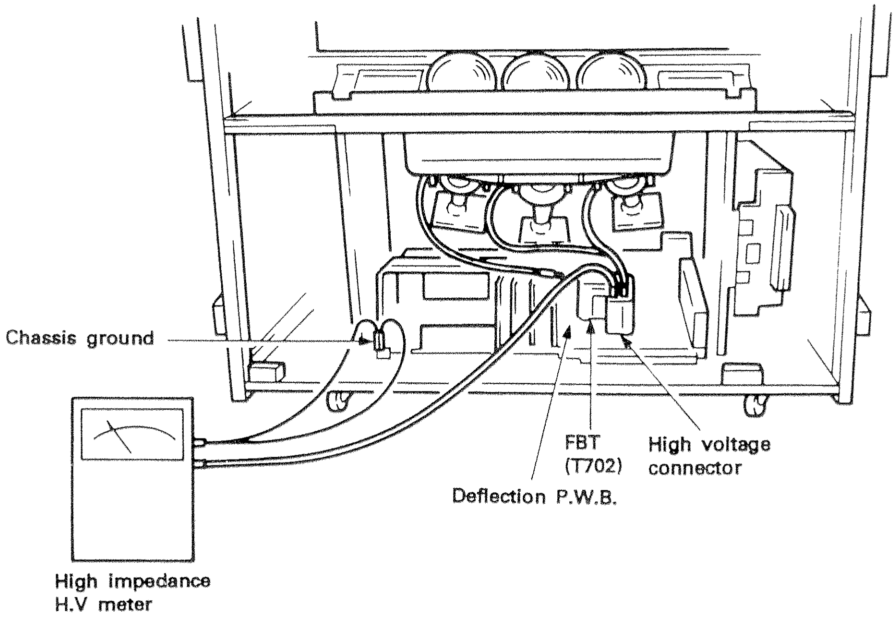
Frequency Synthesis (FS) Tuning Systems

1. Always unplug the instrument AC power cord before disconnecting or reconnecting FS tuning system cables and before removing or reinserting FS tuning system modules.
2. The FS tuner must never be disconnected from the FS tuning control module while power is applied to the instrument.
3. When troubleshooting intermittent problems that might be caused by defective cable connection(s) to the FS tuning system, remove the instrument AC power as soon as the defective connector is found and finish confirming the bad connection with a continuity test. This procedure will reduce the probability of electrical overstress of the FS system semi-conductor components.

TECHNICAL CAUTIONS

High voltage limiter circuit operation check

1. Connect the high voltage voltmeter between the high voltage connector and chassis ground as shown Fig. 2.
2. Set the AC input voltage to 120V.
3. Set picture and black level control fully to + side (max.) of the on-screen indication.
4. Connect the jig as shown in Fig. 2 to POWER SUPPLY P.W.B.
5. Turn the 20 kΩ-B VR of the jig fully clockwise viewed from the knob side.
6. Turn on the set.
7. Gradually turn the 20 kΩ-B VR of the jig counterclockwise and check that the picture disappears when the high voltage is less than 36.0kV.
8. Turn off the set immediately after checking that the picture disappears.
9. Remove the jig and voltmeter.


Chassis ground
FBT (T702)
High voltage connector
Deflection P.W.B.
High impedance H.V meter

POWER SUPPLY P.W.B. (Front view)

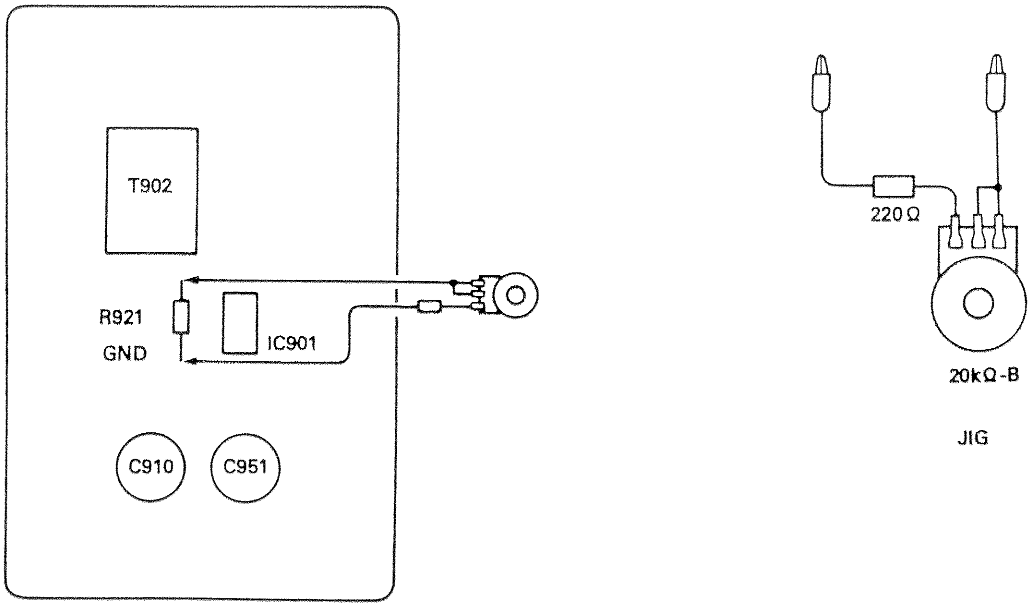

T902
R921
GND
IC901
C910
C951
220Ω
20kΩ-B
JIG

Fig. 2

SPECIFICATIONS

Model:	60SX2K	
Cathode-Ray tube:	80° deflection 7 inch.	
	(180CGB22R/G/B)	
Power Input:	120 volts AC, 60Hz	
Power Consumption:	310 watts – Maximum	
	210 watts – Operating	
Antenna Impedance:	75 ohm Unbalanced	
	VHF/UHF/CATV	
Receiving Channel:		CH
	VHF	2-13
	UHF	14-69
	EXT. Mid	(A-2)-(A-1), 4⁺
	CATV Mid	A-I
	CATV Super	J-W
	CATV Hyper	(W + 1)-(W + 28)
	CATV Ultra	(W + 29)-(W + 53)
Intermediate Frequency:	Picture I-F Carrier 45.75 MHz	
	Sound I-F Carrier 41.25 MHz	
	Color Sub Carrier 42.17MHz	
Video Input:	1 Voltp-p	75 ohm
Video Output:	1 Voltp-p	75 ohm
Audio Input:	0.4 volt rms, 40 k ohm	
Stereo Audio Output:	0.4 volt rms, 1 k ohm	
Audio Output Power:	Front – 10 watts rms per channel, 8 ohm impedance.	
	Rear – 5 watts rms per channel, 8 ohm impedance.	

Anode Voltage:	33.6 kV	
	(Zero Beam Current)	
Brightness:	380 ft-L Nominal	
	(Peak White)	
Speakers:	2 Woofers – 6 inch	
	(16 cm) round	
	2 Tweeters – 2 inch	
	(5 cm) round	
Dimension:	Width . . .	53-3/16
	Height . .	62-5/8
	Depth . . .	27-19/32
	Weight. . .	362
Circuit Board Assemblies:	CPT (B) P.C.B	
	CPT (G) P.C.B	
	CPT (R) P.C.B	
	Signal P.C.B	
	Power Supply P.C.B	
	Deflection P.C.B	
	3-Way P.C.B	
	Pro-Logic P.C.B	
	P in P Selector P.C.B	
	SP Terminal P.C.B	
	Control P.C.B	

CIRCUIT PROTECTION

Fuse (or Device)	Circuit Protected	Physical location
F901 5.0A-125V (AC)	Main Fuse	Signal Circuit Board
F903 4.0A-125V (DC)	〃	Power Supply Circuit Board
F904 4.0A-125V (DC)	Audio Output Circuit	Power Supply Circuit Board
F905 1.6A-125V (DC)	Deflection Circuit	Power Supply Circuit Board

GENERAL INFORMATION

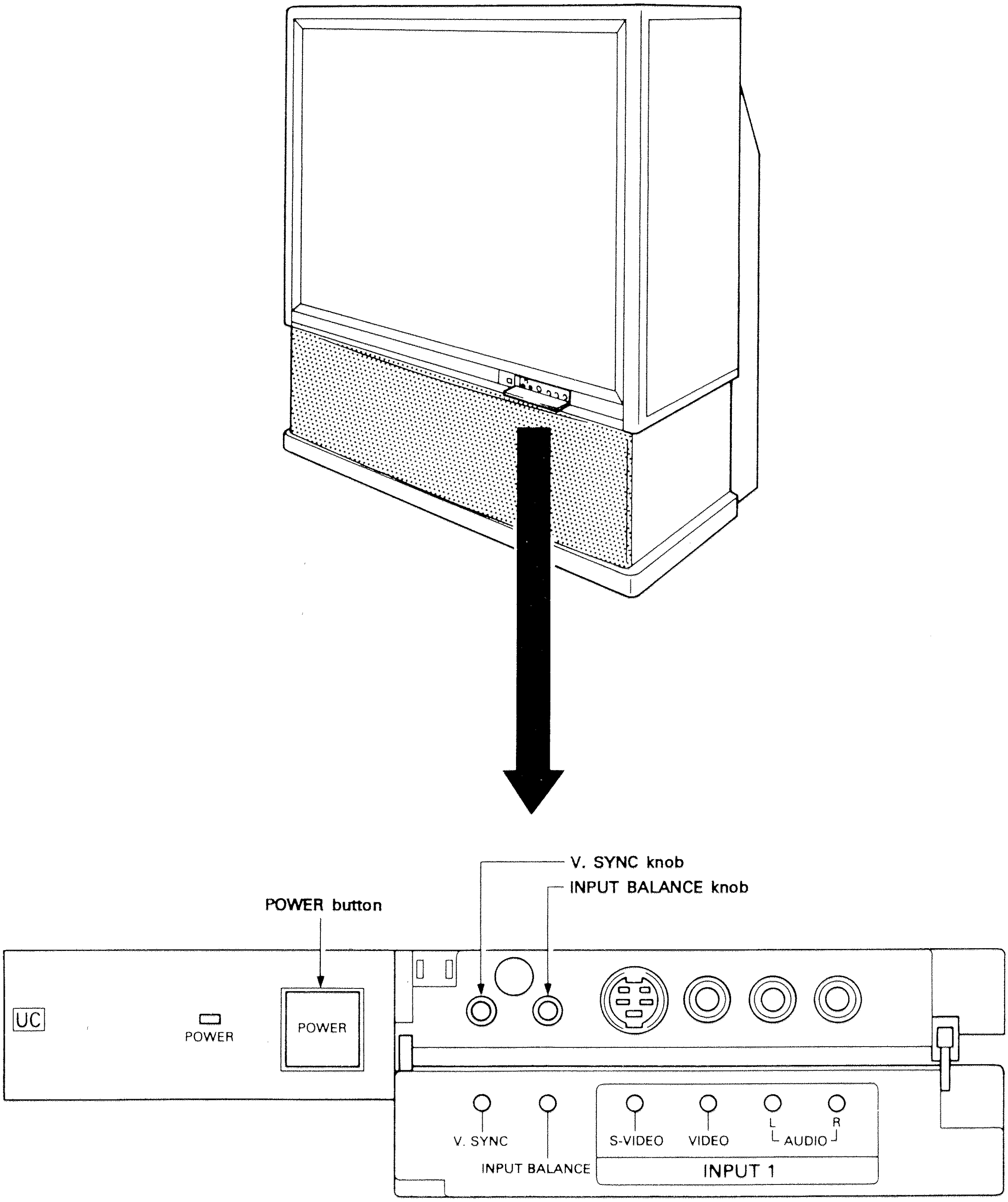

V. SYNC knob
INPUT BALANCE knob
POWER button
UC
POWER
POWER
V. SYNC
INPUT BALANCE
S-VIDEO
VIDEO
L
R
AUDIO
INPUT 1

Fig. 3 Control panel

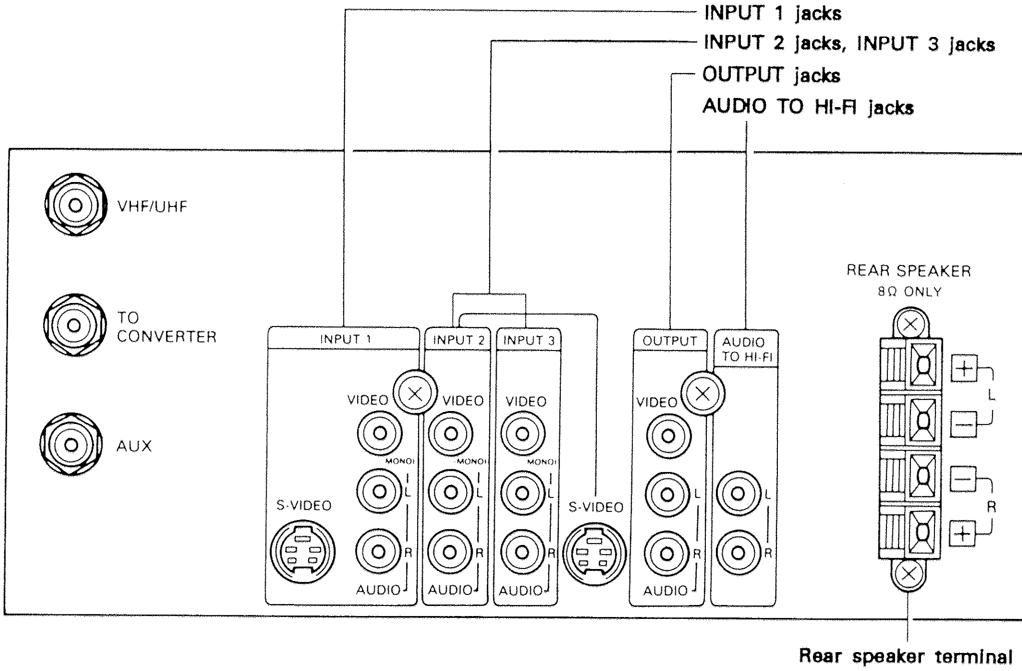
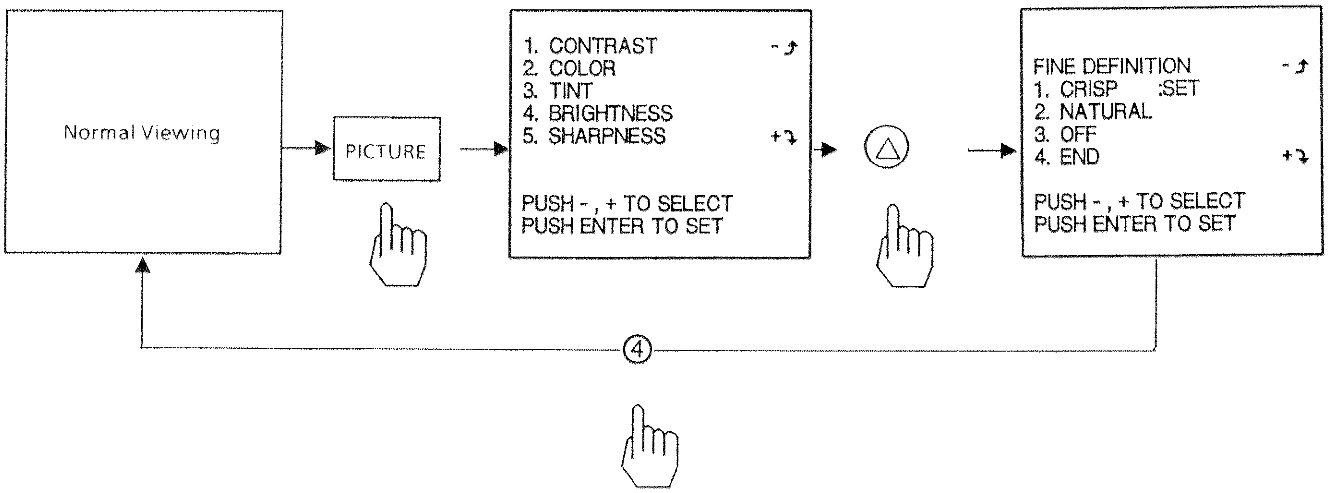

INPUT 1 jacks
INPUT 2 jacks, INPUT 3 jacks
OUTPUT jacks
AUDIO TO HI-FI jacks
VHF/UHF
TO CONVERTER
AUX
INPUT 1
INPUT 2
INPUT 3
OUTPUT
AUDIO TO HI-FI
VIDEO
MONO
L
R
AUDIO
S-VIDEO
REAR SPEAKER
8Ω ONLY
+
−
Rear speaker terminal

Fig. 4 Monitor connection panel

ADJUSTING FOR PICTURE AND SOUND FUNCTIONS

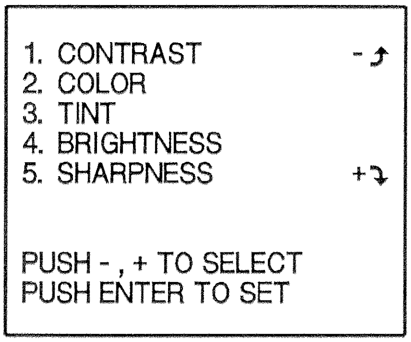
PICTURE BUTTON

Press this button to display the following picture adjustment:


Normal Viewing
PICTURE
1. CONTRAST - ⤴
2. COLOR
3. TINT
4. BRIGHTNESS
5. SHARPNESS + ⤵
PUSH - , + TO SELECT
PUSH ENTER TO SET
△
FINE DEFINITION - ⤴
1. CRISP :SET
2. NATURAL
3. OFF
4. END + ⤵
PUSH - , + TO SELECT
PUSH ENTER TO SET
④

Example – "CONTRAST" adjustment

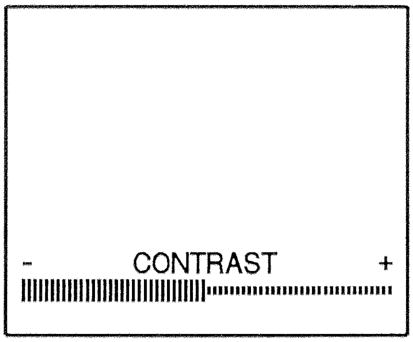
(1) Press "PICTURE" button on Remote Control once displyas Picture menu.



1. CONTRAST - ⤴
2. COLOR
3. TINT
4. BRIGHTNESS
5. SHARPNESS + ⤵

PUSH - , + TO SELECT
PUSH ENTER TO SET

(2) Press number button "1" to select CONTRAST.



- CONTRAST +

Press " – " button to decrease contrast, or press " + " button to increase contrast.

Adjustment for Picture

- **CONTRAST adjustment**

The "CONTRAST" function adjusts the overall brightness and contrast of the picture.

(1) Press PICTURE button once to get Picture adjustment menu.
(2) Press number button "1" to select CONTRAST.
(3) Press " + " button repeatedly to increase contrast, or press " – " button repeatedly to decrease contrast.

- **COLOR adjustment**

The "COLOR" function adjusts the amount of color in the picture.

(1) Press PICTURE button once to get Picture adjustment menu.
(2) Press number button "2" to select COLOR.
(3) Press " + " button repeatedly to inclease color, or press " – " button repeately to decrease color.

- **TINT adjustment**

The "TINT" function adjusts the color of flesh tones.

(1) Press PICTURE button once to get Picture adjustment menu.
(2) Press numer button "3" to select TINT.
(3) Press " + " button repeatedly to add more red tint, or press " – " button repeatedly to add more green tint.

- **BRIGHTNESS**

The "BRIGHTNESS" function adjusts the brightness of the dark portion of the picture.

(1) Press PICTURE button once to get Picture adjustment menu.
(2) Press number button "4" to select BRIGHTNESS.
(3) Press " + " button repeatedly to increase brightness, or press " – " button repeatedly to decrease brightness.

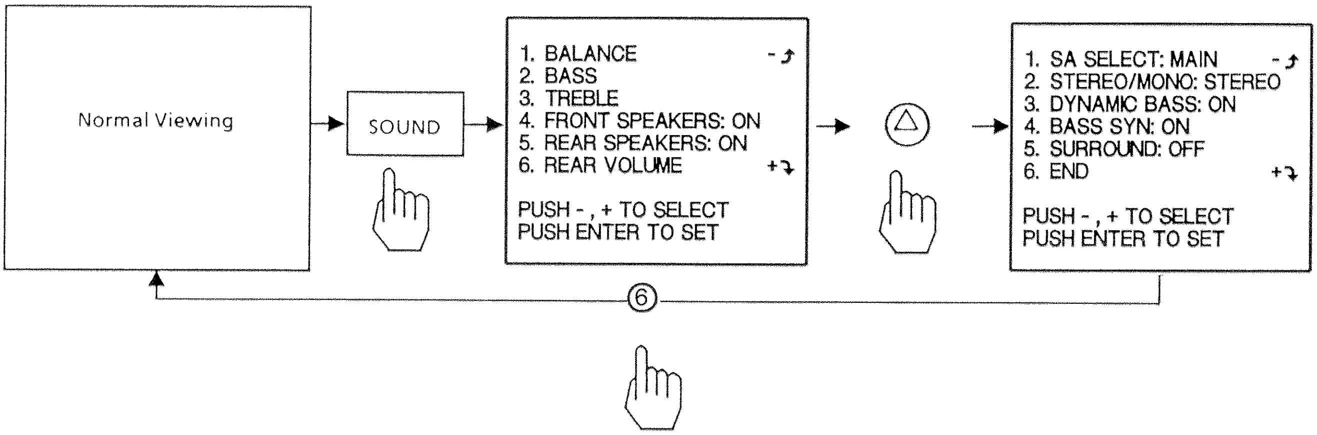
- **SHARPNESS**

The "SHARPNESS" function adjusts picture sharpness.

(1) Press PICTURE button once to get Picture adjustment menu.
(2) Press number btton "5" to select SHARPNESS.
(3) Press " + " button repeatedly to increase sharpness, or press " – " button repeatedly to decrease sharpness.

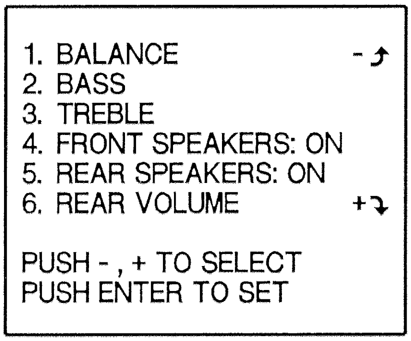
SOUND BUTTON

Press this button to display the following sound adjustment:


Normal Viewing
SOUND
1. BALANCE -⤴
2. BASS
3. TREBLE
4. FRONT SPEAKERS: ON
5. REAR SPEAKERS: ON
6. REAR VOLUME +⤵
PUSH - , + TO SELECT
PUSH ENTER TO SET
△
1. SA SELECT: MAIN -⤴
2. STEREO/MONO: STEREO
3. DYNAMIC BASS: ON
4. BASS SYN: ON
5. SURROUND: OFF
6. END +⤵
PUSH - , + TO SELECT
PUSH ENTER TO SET
⑥

Example – "TREBLE" adjustment

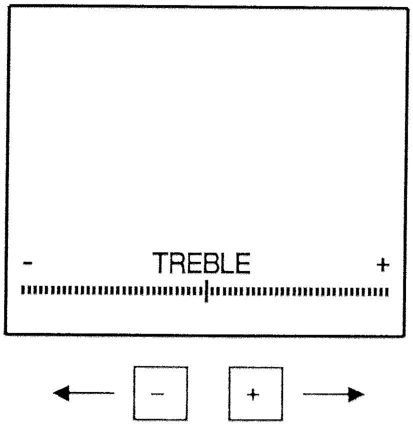
(1) Press "SOUND" button on remote control once displyas Sound menu.



1. BALANCE -
2. BASS
3. TREBLE
4. FRONT SPEAKERS: ON
5. REAR SPEAKERS: ON
6. REAR VOLUME +

PUSH - , + TO SELECT
PUSH ENTER TO SET

(2) Press number button "3" to select TREBLE.



Press " – " button to decrease treble, or press " + " button to increase treble.

Adjustment for Sound

- **BALANCE adjustment**

The "BALANCE" function adjusts the right / left balance of sound from the speakers.

(1) Press SOUND button once to get Sound adjustment menu.

(2) Press number button "1" to select BALANCE.

(3) Press " + " button repeatedly to increase sound level from right speaker, or press " – " button repeatedly to increase sound level from left speaker.

- **BASS adjustment**

The "BASS" function adjusts the low frequancy audio.

(1) Press SOUND button once to get Sound adjustment menu.

(2) Press number button "2" to select BASS.

(3) Press " + " button repeatedly to increase bass, or press " – " button repeatedly to decrease bass.

- **TREBLE adjustment**

The "TREBLE" function adjusts the high frequancy audio.

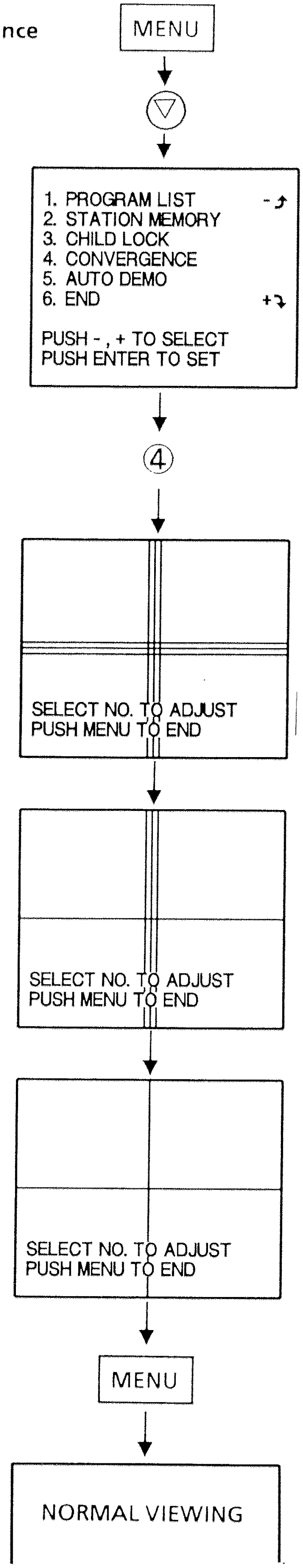
(1) Press SOUND button once to get Sound adjustment menu.

(2) Press number button "3" to select TREBLE.

(3) Press " + " button repeatedly to increase bass, or press " – " button repeatedly to decrease bass.

CONVERGENCE ADJUSTMENT

Static Convergence


MENU
▽
④
MENU
NORMAL VIEWING

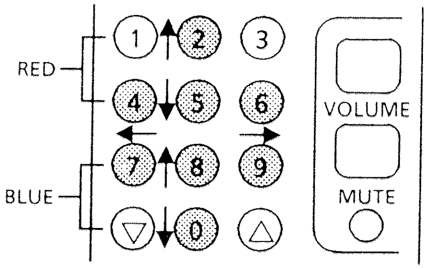
1. PROGRAM LIST -⤴
2. STATION MEMORY
3. CHILD LOCK
4. CONVERGENCE
5. AUTO DEMO
6. END +⤵

PUSH - , + TO SELECT
PUSH ENTER TO SET

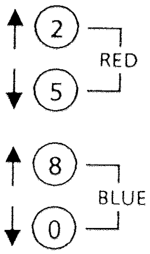
SELECT NO. TO ADJUST
PUSH MENU TO END

Use button on Remote to align colors to form white lines

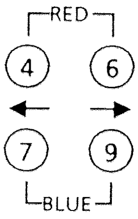
Remote Control


RED
BLUE
1
2
3
4
5
6
7
8
9
▽
0
△
VOLUME
MUTE

Vertical Position


2
RED
5
8
BLUE
0

Horizontal Position


RED
4
6
7
9
BLUE

DIGITAL CONVERGENCE ADJUSTMENT

When you change a PRT, DY or the deflection P.W.B. for maintenance, adjust convergence according to page 17 ~page 19.

• Adjustment with no parts replaced (adjustment when installing etc.)

The digital convergence adjustment is done using the remote control. Chose a reference raster color (any one of red, green and blue rasters) and match the other rasters with it when adjusting.

(1) Receive an RF or video signal.

(2) Remove the speaker grille of the TV set and short-circuit the 2P connector [DT] on the deflection P.W.B. (Since the speaker grille is usually fixed by screws, this adjustment should be performed only by a service person when servicing.)
The screen becomes as shown below at this time.

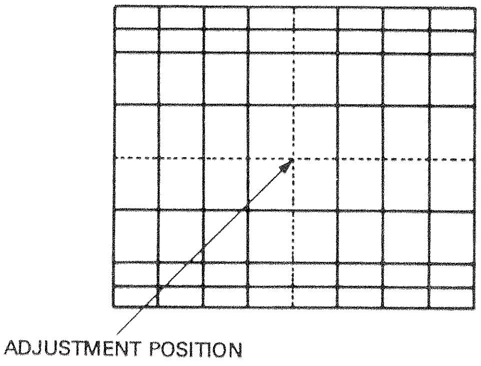


Fig. 1

(3) Select the color for convergence adjustment. The color selected becomes dots as shown above.

100 ·········· Green
LST-CH ········ Red } Slect from remote control
AVX ············ Blue

(4) Move the cursor (dots) using the remote control.

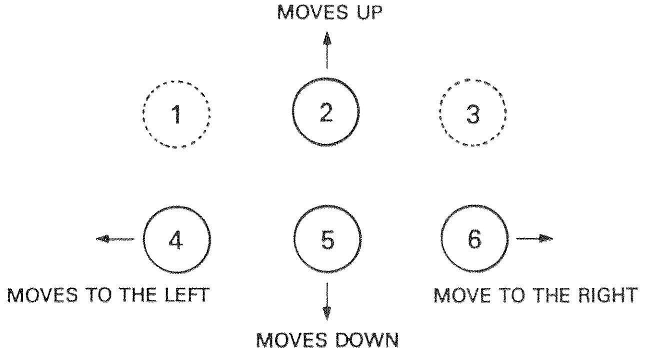


Fig. 2

(5) Perform convergence adjustment using the remote control.

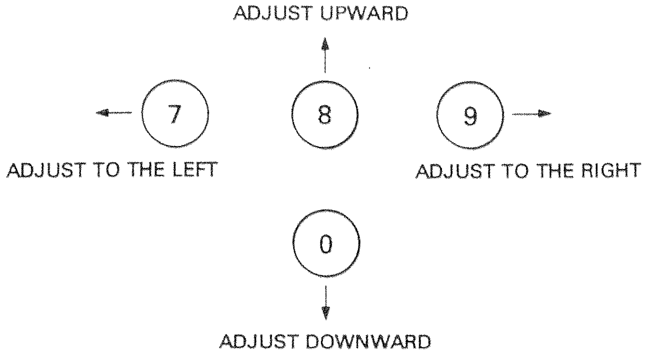


Fig. 3

Start adjustment at the center of the screen and perform from nearer section to the edge section.

(6) After the convergence adjustment is completed, press the [PICTURE] button to perform interpolation operation. The operation time is about for 15 seconds and no picture appears during this operation.

(7) After the interpolation operation is completed, check the convergence using the cross-hatch pattern again. If it is acceptable, write the convergence data into the ROM. Press [SHIFT] once. Magenta dots will be displayed. This is the alarm display. Press [SHIFT] again. Writing is executed. The writing time is about for 20 seconds and no picture is displayed at this time. When writing is completed, the green dots are displayed, then press [AVX] button.

(8) Release the short-circuit of the 2P connector [DT] and the adjustment is completed.

• Adjustment when replacing parts

(1) Put jig screen for digital convergence adjustment on 60SX2K

(2) Static convergence data reset
Shot [jig] connector ①-② pin on signal P.W.B. front side for approximately one second.

(3) Changing digital convergence adjustment mode.
Short [DT] connector ①-② pin on deflection P.W.B. front side to display digital convergence adjustment mode.

(4) Digital convergence data clear on ram
Press [P IN P] key on remote control (R/C).
One time press : Condition is alarm of data clear. Display on the screen is green and blue dots.
Two times press : Data is clear on ram

(5) Vertical amplitude adjustment
Reference page 18

(6) Horizontal amplitude adjustment
Reference page 18

(7) Raster position adjustment
Reference page 19

(8) Reading data from rom
Press [EXCHNG] key on R/C.

One time press : Condition is alarm of data read
: Display on screen is red and green dots

Two times press : Data is read from rom
There will be no picture for about 20 seconds, then mode will return to convergence adjustment mode. (crosshatch)

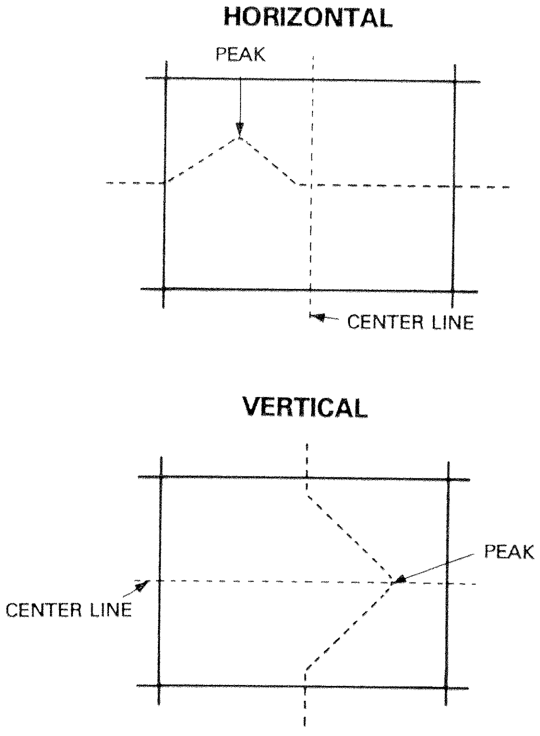
(9) Phase adjustment
Press [SOUND] key on R/C. Mode becomes phase adjustment mode. [Green cross-hatch only]

(9)-1 Internal cross-hatch signal phase adjustment
Adjust like Fig 4 by using [7] [9] (horizontal direction), [8] [0] (vertical direction) keys on R/C.

One more press [SOUND] key on R/C. Mode will change to convergence adjustment mode.

(9)-2 Convergence phase adjustment
Adjust phase of internal cross-hatch center signal (dot line) for digital convergence adjustment to phase of external signal center by using [4] [6] (horizontal direction), [2] [5] (vertical direction) keys on R/C.

Coincide center of internal cross-hatch signal to center of circle pattern signal.


HORIZONTAL

VERTICAL

Fig. 4

(10) Convergence adjustment

(10)-1 Green convergence adjustment
Press [100] key on R/C. Mode becomes green convergence adjustment mode.
Press [FREEZE] on R/C. Mode becomes green raster position adjustment mode. [Extra H-lines appear]
Put center of green internal cross-hatch on center of jig screen cross-hatch by using [7] [9] (H), [8] [0] (V) keys on R/C.
Press the [FREEZE] key on R/C again to return to green convergence adjustment mode.
Adjust green internal cross-hatch signal on jig screen cross-hatch at each adjustment point by using [7] [8] [9] [0] keys on R/C.
Adjustment point is cross point between H and V broken lines
Adjustment point can be moved by using [2] [4] [5] [6] keys on R/C.

Adjust convergence from center area first on the screen. Adjust convergence around center area and then move cursor outward and adjust edge section last.
Remove jig screen and use normal screen for remaining steps.

(10)-2 Red convergence adjustment
Press [LST-CH] key on R/C and mode becomes red convergence adjustment mode.
Press [FREEZE] key on R/C and mode becomes red raster position adjustment mode.
Put center of red internal cross-hatch on center of green internal cross-hatch by using [7] [9] (H), [8] [0] (V) keys on R/C.
Press [FREEZE] key on R/C again to return to red convergence adjustment mode.
Put red internal cross-hatch on green cross-hatch signal each adjustment point by using [7] [8] [9] [0] (V) keys on R/C.
Adjustment point is cross point between H and V broken lines.
Adjustment point can be moved by using [2] [4] [5] [6] keys on R/C.
Adjust convergence area from center area first, and outside edges last.

(10)-3 Blue Convergence adjustment
Press [AVX] key on R/C and mode becomes blue convergence adjustment mode.
Press [FREEZE] key on R/C and mode becomes blue raster position adjustment mode.
Put center of blue internal cross-hatch on center of green internal cross-hatch by using [7] [9] (H), [8] [0] (V) keys on R/C.

Press [FREEZE] key on R/C again to return to blue convergence adjustment mode.
Put blue internal cross-hatch signal on green cross-hatch signal each adjustment point by using [7] [8] [9] [0] keys on R/C.
Adjustment point is cross point between H and V broken lines.
Adjustment point can be moved by using [2] [4] [5] [6] keys on R/C.

Adjust convergence from center area first and outside edges last.

(11) Calculation
If convergence adjustment is finished, press [PICTURE] key on R/C.
This operation is calculation.
This operation makes convergence data match between adjustment point and adjustment point.

If you find misconvergence more than 1mm. Adjust convergence again.

(12) Writing data to rom
Press [SHIFT] key on R/C.
One time press : Condition is alarm of data write
: Display on the screen is red and blue dots
Two times press : Data is written to rom
When display of the screen is green dots, writing operation is OK.
If writing operation is OK, press [AVX key on R/C.
Mode returns to convergence adjustment mode.
Digital convergence adjustment is finished.
When display of the scree is red dots, writing operation is NG.
If writing operation is NG, swap digital convergence unit and readjust.

(13) Open [DT] connector ①-② pin on deflection P.W.B. front side.
Digital convergence adjustment mode is finished.

Vertical amplitude adjustment

Preparation for adjustment

(1) Start adjustment 20 minutes or more after the power switch is turned on.
(2) Receive the cross-hatch signal from the digital convergence unit.
(3) Contrast : Maximum
Other controls : Standard position
(4) The lens focus, electric focus and beam alignment should have been adjusted.
(5) The raster inclination should have been adjusted.
(6) The convergence should not be corrected.

Adjustment procedure

(1) Project only G light by applying covers to the R and B lenses or by short-circuiting the [TS] connectors on the R and B CPT P.W.Bs.
(2) Turn the vertical amplitude adjustment VR (R662) and adjust so that the distance between the horizontal lines at the top and bottom of the cross-hatch pattern is ℓ.

ℓ =820±5

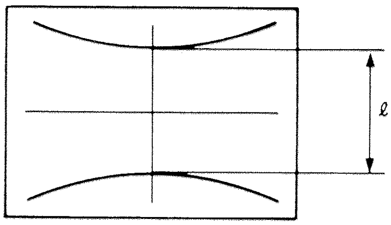


Fig. 5

Horizontal amplitude adjustment

Preparation for adjustment

(1) Start adjustment 20 minutes or more after the power switch is turned on.
(2) Receive the cross-hatch signal from the digital convergence adjustment jig.
(3) Contrast : Maximum
Other controls : Standard position (0)
(4) The lens focus, electric focus and beam alignment should have been adjusted.
(5) The raster inclination should have been adjusted.
(6) The convergence should not be adjusted.

Adjustment procedure

(1) Project only G light by applying covers to the R and B lenses or by short-circuiting the [TS] connectors on the R and B CPT P.W.Bs.
(2) Turn the horizontal amplitude adjustment VR (R763) and adjust so that the distance between the 2nd vertical line from the left end of the cross-hatch pattern and the 2nd vertical line from the right end of the cross-hatch pattern is ℓ.

ℓ =970±5

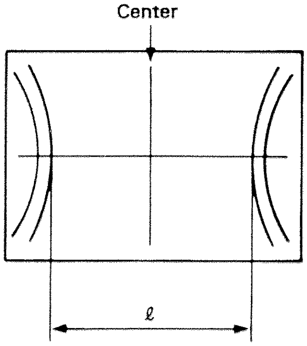


Fig. 6

Raster position adjustment

Preparation for adjustment

(1) Place the set facing east or west.

(2) Receive the cross-hatch signal from the digital convergence adjustment jig.

(3) Brightness : Maximum
Other controls : Standard position

(4) The lens focus, electric focus and beam alignment should have been adjusted.

(5) The convergence should not be corrected.

(6) The raster inclination, horizontal/vertical amplitude should have been adjusted.

Adjustment procedure

(1) Turn the centering magnets of R and B and adjust so that the center point of the cross-hatch pattern satisfies the diagram below.

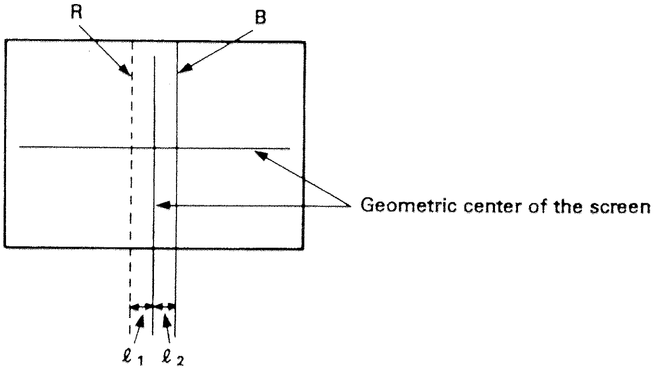

R
B
Geometric center of the screen
ℓ_1 ℓ_2

Fig. 7

[Horizontal direction]

$\ell_1=26$, $\ell_2=22$

R : ℓ_1 to the left from the geometric center of the screen
$\ell_1\pm2$mm

B : ℓ_2 to the left from the geometric center of the screen
$\ell_2\pm2$mm

[Vertical direction]

Both R and B should be the same position as the geometric center of the screen ±2mm.

JIG SCREEN SPECIFICATION

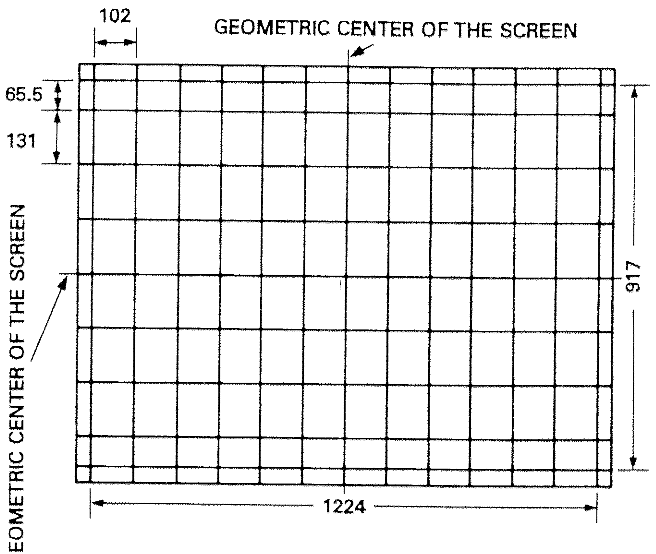

102
GEOMETRIC CENTER OF THE SCREEN
65.5
131
GEOMETRIC CENTER OF THE SCREEN
917
1224

Fig. 8 UNIT : mm

DIGITAL CONVERGENCE ADJUSTMENT REMOTE CONTROL FUNCTION

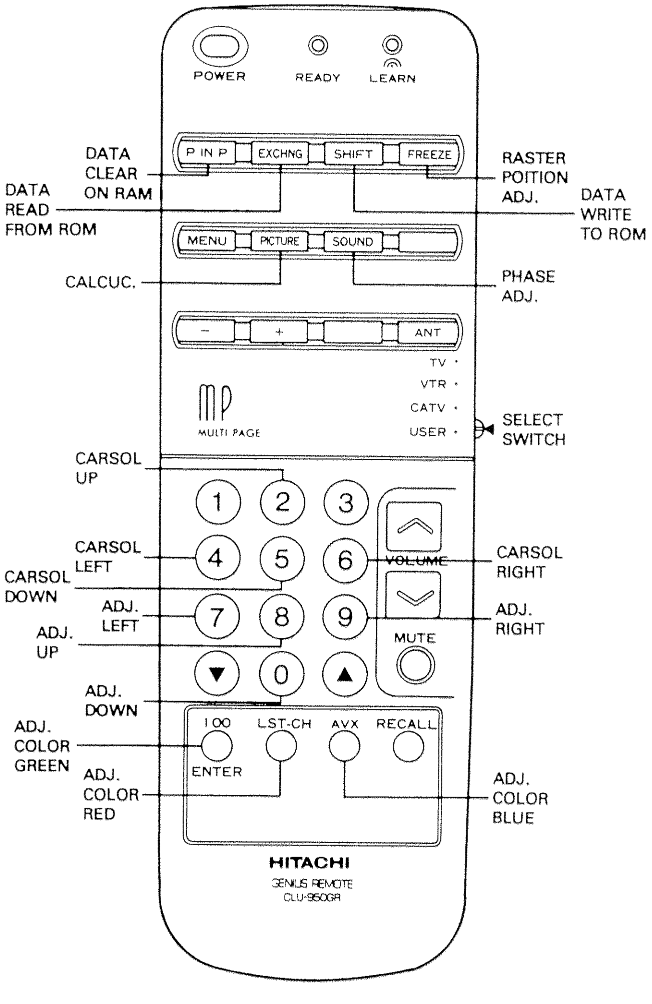

POWER
READY
LEARN
DATA CLEAR ON RAM
DATA READ FROM ROM
P IN P
EXCHNG
SHIFT
FREEZE
RASTER POITION ADJ.
DATA WRITE TO ROM
MENU
PICTURE
SOUND
CALCUC.
PHASE ADJ.
−
+
ANT
TV
VTR
CATV
USER
MULTI PAGE
SELECT SWITCH
CARSOL UP
1
2
3
CARSOL LEFT
CARSOL DOWN
4
5
6
VOLUME
CARSOL RIGHT
ADJ. LEFT
ADJ. UP
7
8
9
ADJ. RIGHT
MUTE
0
ADJ. DOWN
ADJ. COLOR GREEN
100
LST-CH
AVX
RECALL
ENTER
ADJ. COLOR RED
ADJ. COLOR BLUE
HITACHI
GENIUS REMOTE
CLU-950GR

Fig. 9

CAUTIONS WHEN CONNECTING/DISCONNECTING THE HV CONNECTOR

Perform the following when the HV connector (anode connector) is removed or inserted for CPT replacement, etc.

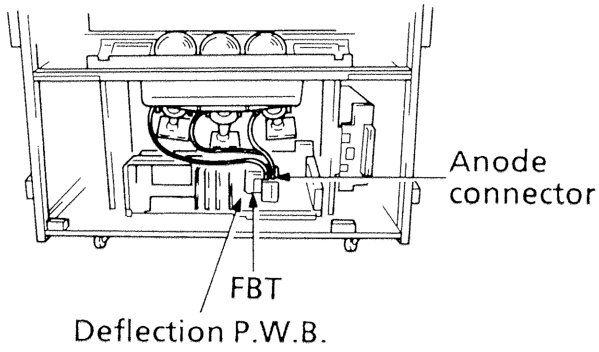

Anode connector
FBT
Deflection P.W.B.

Fig. 5

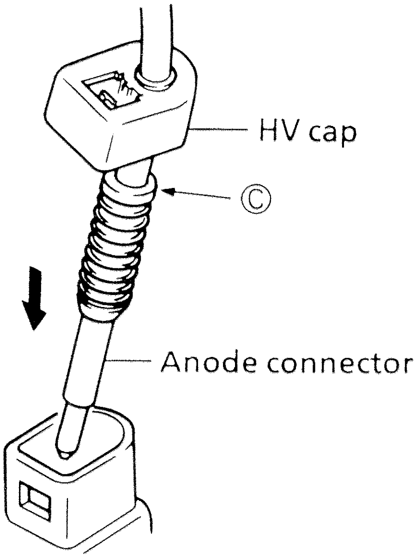

HV cap
©
Anode connector

Fig. 7

- **During removal**

(1) Insert a small flat-bladed screwdriver (adjustment screwdriver : 5 - 7 mm wide and 0.2 - 0.3 mm thick) into section Ⓐ in Fig.6 and then push it in the direction of arrow Ⓑ. The lock will release with a click. (The state in Fig.8 - (1) will change to that in Fig.8 - (2).)

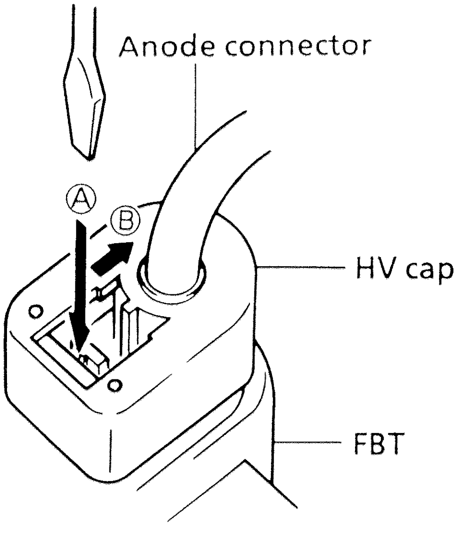

Anode connector
Ⓐ
Ⓑ
HV cap
FBT

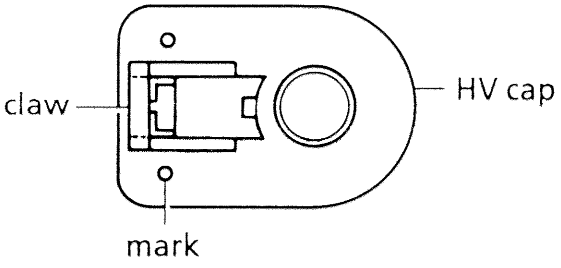
Fig. 6

(2) Remove the HV cap and remove the anode connector (Fig. 7).

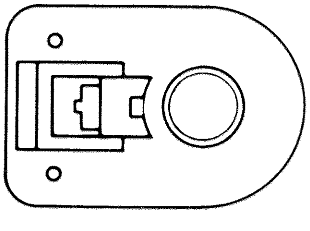
- **During insertion**

(1) Insert the anode connector deep into the FBT (to section © in Fig.7) and then push the HV cap into the FBT until it clicks.

(2) Make sure the connector is securely inserted. (Check that the claw is at the mark on the HV cap shown as in Fig.8 - (1).)


claw
HV cap
mark

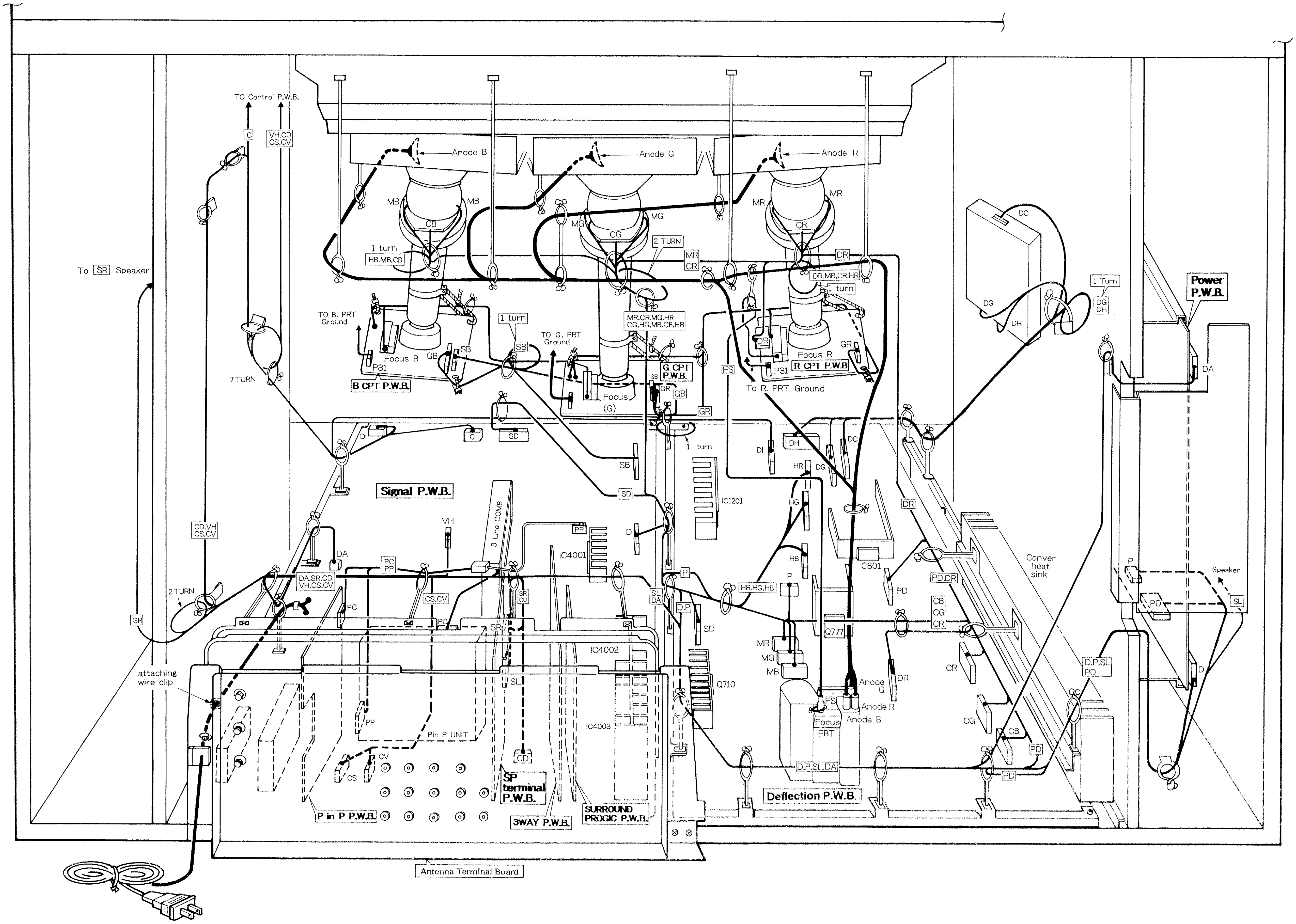
(1) Lock on
(When connector is inserted)



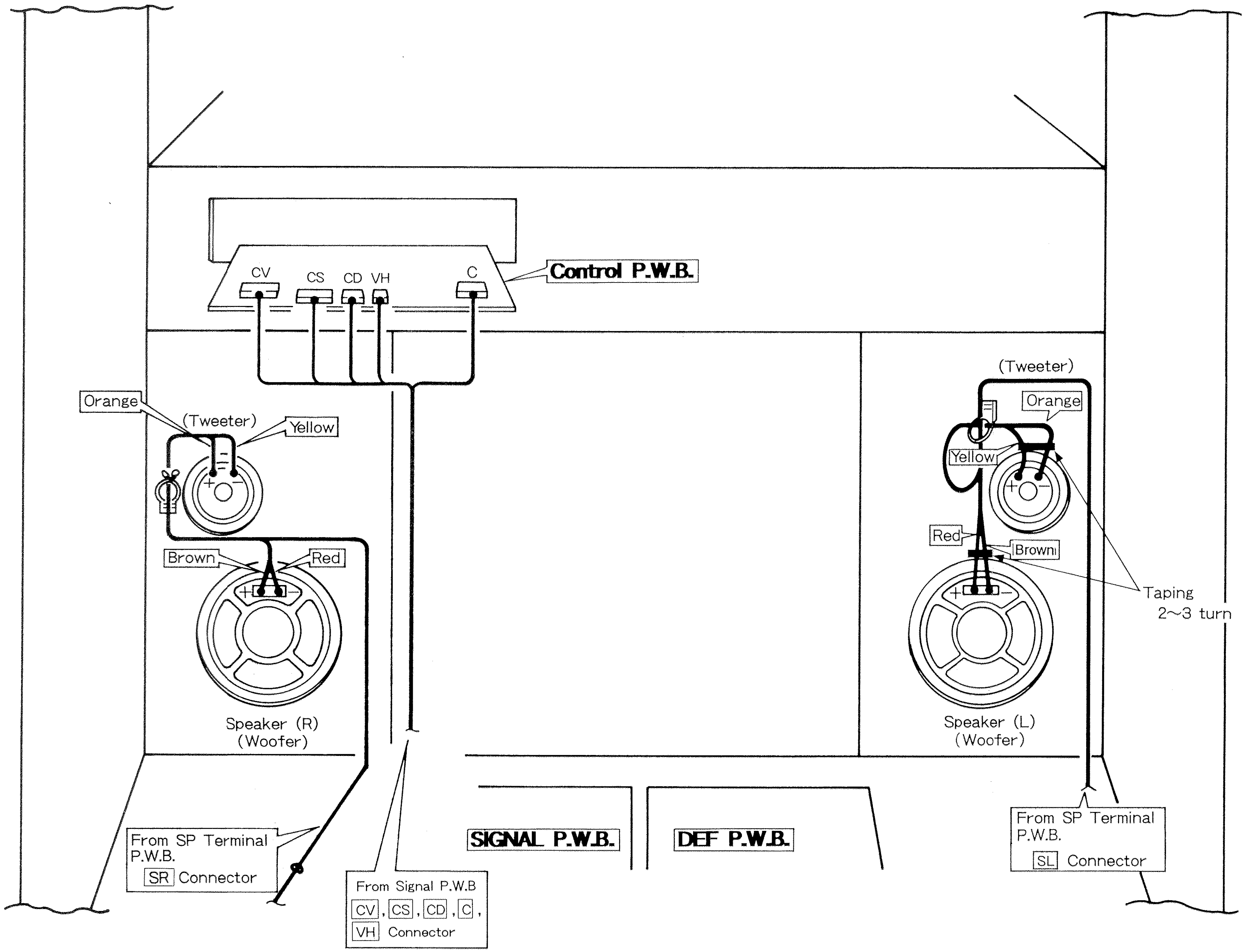
(2) Release
(When connector is removed)

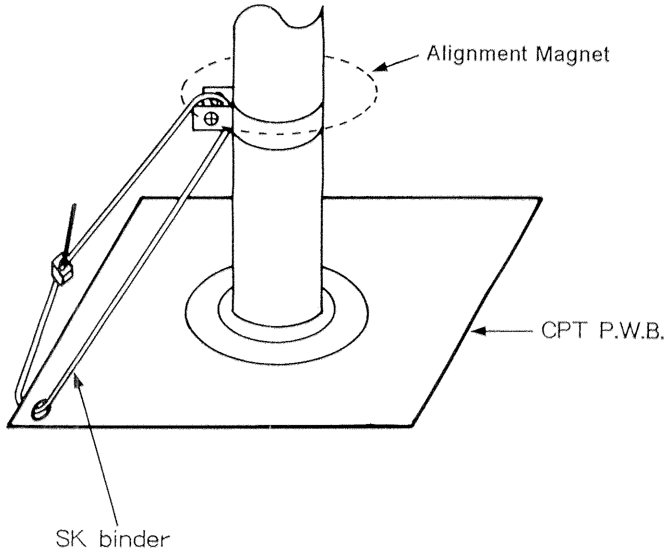
Fig. 8

WIRING DIAGRAM

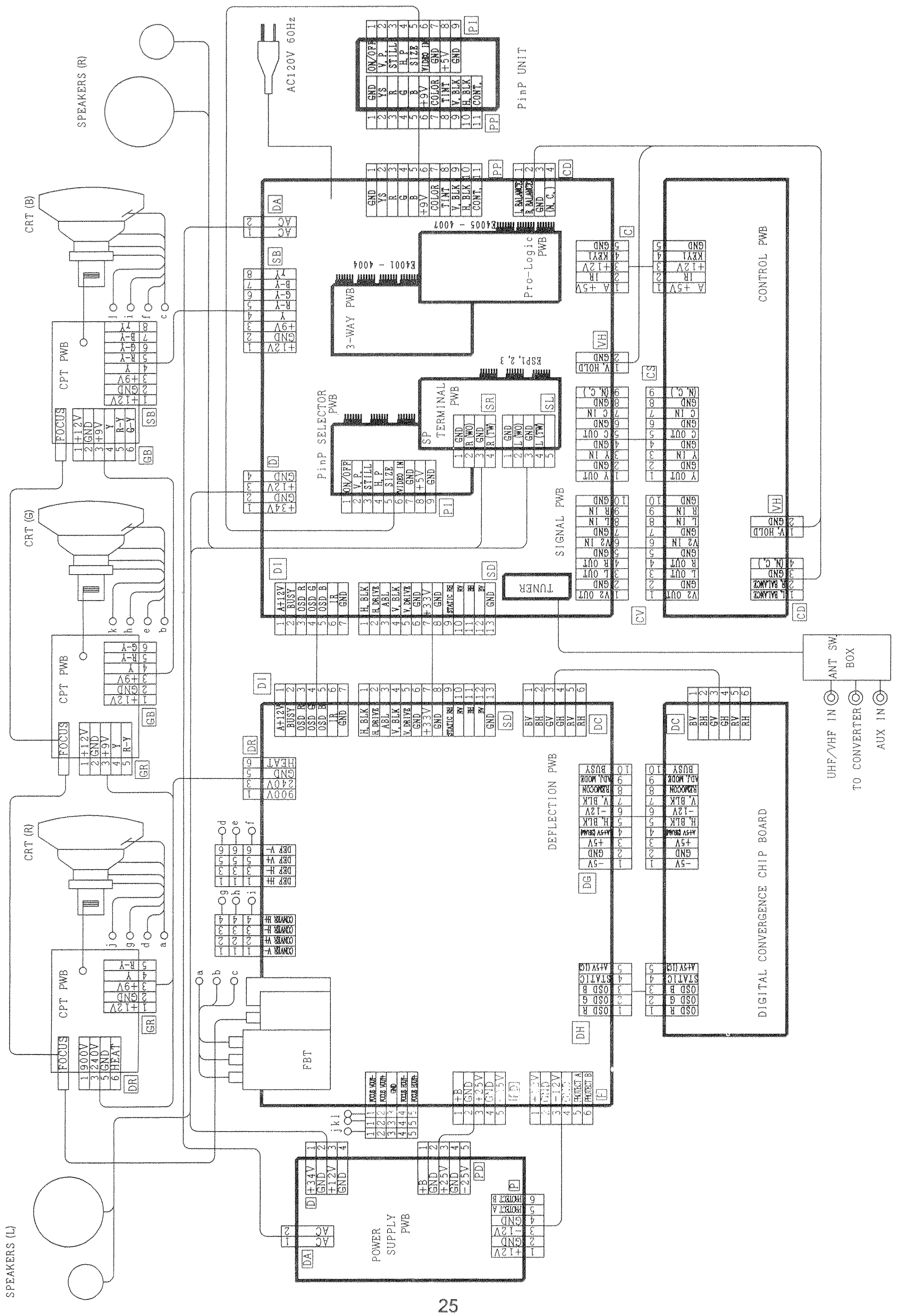

TO Control P.W.B.
C
VH.CD
CS.CV
Anode B
Anode G
Anode R
MB
MB
CB
MG
MG
CG
MR
MR
CR
1 turn
HB.MB.CB
2 TURN
MR
CR
DR
DR.MR.CR.HR
1 turn
To SR Speaker
TO B. PRT
Ground
Focus B
GB
SB
P31
B CPT P.W.B.
1 turn
SB
TO G. PRT
Ground
MR.CR.MG.HR
CG.HG.MB.CB.HB
G CPT
P.W.B.
GB
GR
GB
GR
Focus
(G)
FS
DR
Focus R
GR
P31
R CPT P.W.B.
To R. PRT Ground
DC
DG
DH
1 Turn
DG
DH
Power
P.W.B.
DA
7 TURN
DI
C
SD
SB
SD
1 turn
DI
DH
DC
HR
DG
H
HG
IC1201
DR
Signal P.W.B.
3 Line COMB
VH
PP
D
IC4001
CD.VH
CS.CV
DA
PC
PP
DA.SR.CD
VH.CS.CV
CS.CV
2 TURN
SR
PC
PC
SR
SR
CD
SL
DA
P
D.P
SD
HB
P
HR.HG.HB
C601
PD
PD.DR
CB
CG
CR
Conver
heat
sink
Q777
MR
MG
MB
IC4002
Q710
Anode
G
DR
Anode R
Anode B
FS
Focus
FBT
CR
D.P.SL
PD
CG
CB
PD
PD
D.P.SL.DA
Speaker
P
PD
SL
D
attaching
wire clip
SL
PP
Pin P UNIT
IC4003
CV
CS
CD
SP
terminal
P.W.B.
P in P P.W.B.
3WAY P.W.B.
SURROUND
PROGIC P.W.B.
Deflection P.W.B.
Antenna Terminal Board

WIRING DIAGRAM

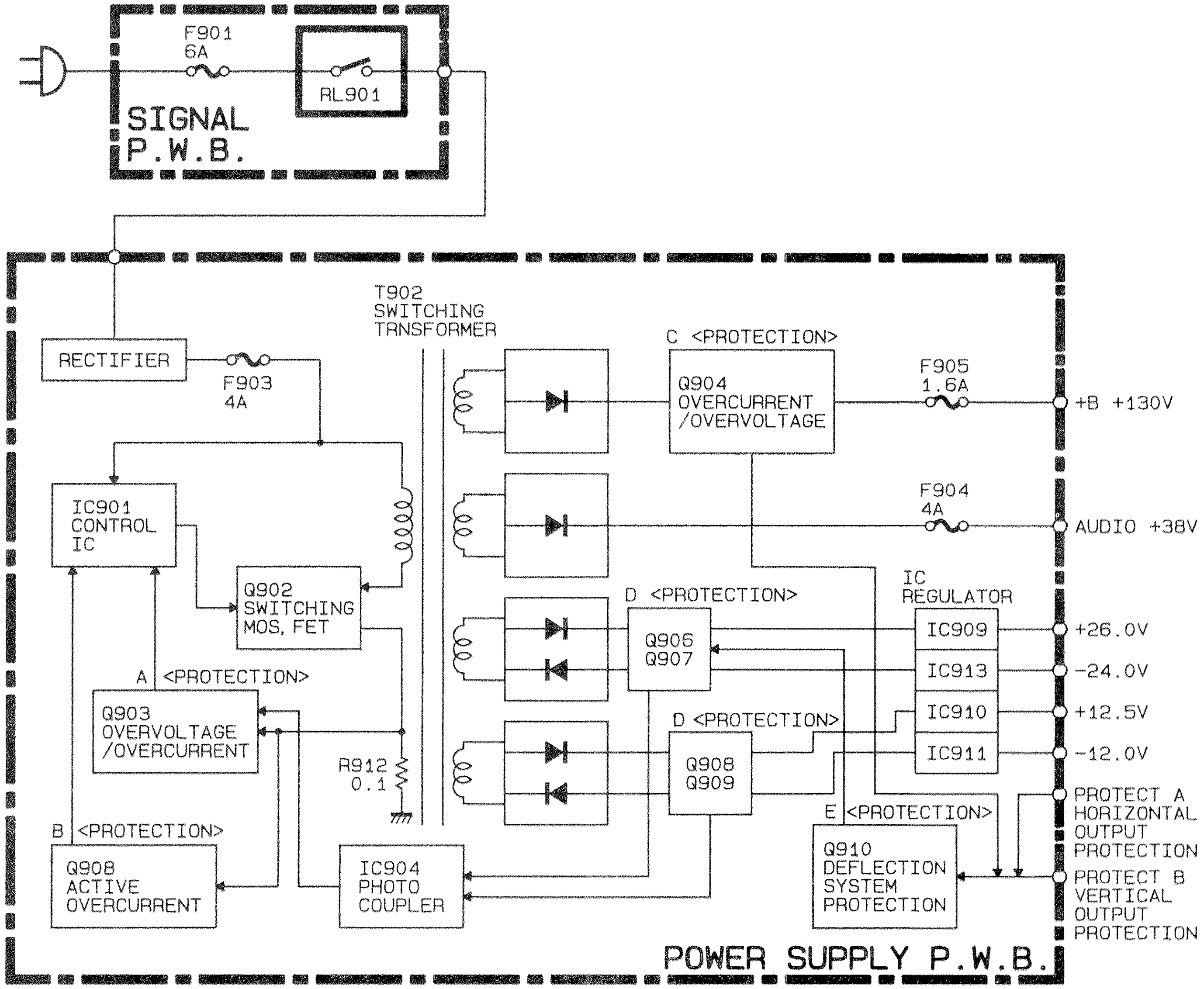

CV
CS
CD
VH
C
Control P.W.B.
Orange
(Tweeter)
Yellow
Brown
Red
Speaker (R)
(Woofer)
From SP Terminal
P.W.B.
SR Connector
From Signal P.W.B
CV, CS, CD, C,
VH Connector
SIGNAL P.W.B.
DEF P.W.B.
(Tweeter)
Orange
Yellow
Red
Brown
Taping
2~3 turn
Speaker (L)
(Woofer)
From SP Terminal
P.W.B.
SL Connector


Alignment Magnet
CPT P.W.B.
SK binder

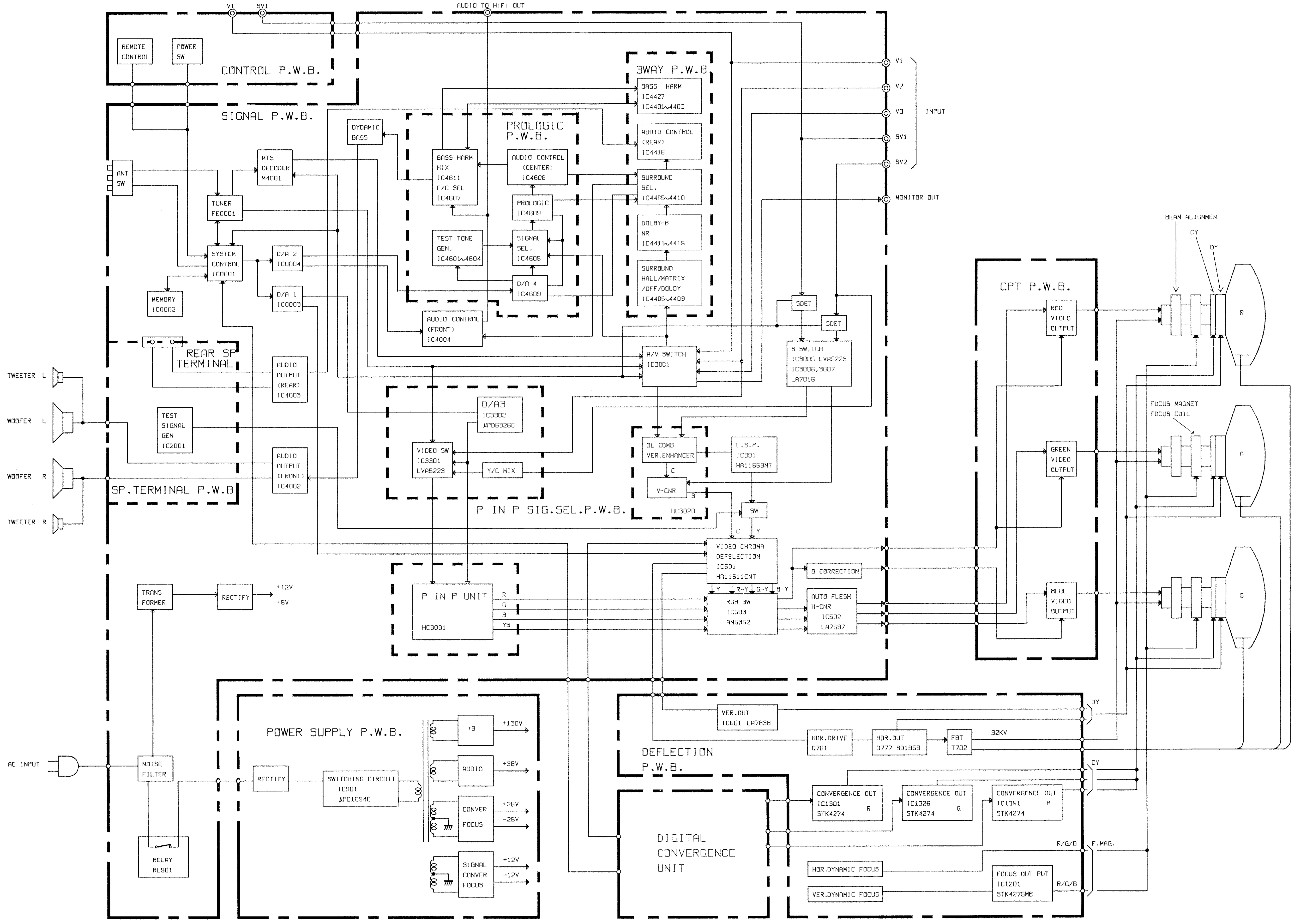
WIRING DIAGRAM


SPEAKERS (R)
AC120V 60Hz
PinP UNIT
CRT (B)
CRT (G)
CRT (R)
CPT PWB
FOCUS
Pro-Logic PWB
3-WAY PWB
PinP SELECTOR PWB
SP TERMINAL PWB
SIGNAL PWB
CONTROL PWB
TUNER
ANT SW BOX
UHF/VHF IN
TO CONVERTER
AUX IN
DEFLECTION PWB
DIGITAL CONVERGENCE CHIP BOARD
FBT
POWER SUPPLY PWB
SPEAKERS (L)

PROTECT CIRCUIT BLOCK DIAGRAM


SIGNAL P.W.B.
F901 6A
RL901
RECTIFIER
F903 4A
T902 SWITCHING TRNSFORMER
C <PROTECTION>
Q904 OVERCURRENT /OVERVOLTAGE
F905 1.6A
+B +130V
F904 4A
AUDIO +38V
IC901 CONTROL IC
Q902 SWITCHING MOS, FET
IC REGULATOR
D <PROTECTION>
Q906 Q907
IC909
+26.0V
IC913
-24.0V
A <PROTECTION>
Q903 OVERVOLTAGE /OVERCURRENT
D <PROTECTION>
IC910
+12.5V
IC911
-12.0V
R912 0.1
Q908 Q909
B <PROTECTION>
Q908 ACTIVE OVERCURRENT
IC904 PHOTO COUPLER
E <PROTECTION>
Q910 DEFLECTION SYSTEM PROTECTION
PROTECT A HORIZONTAL OUTPUT PROTECTION
PROTECT B VERTICAL OUTPUT PROTECTION
POWER SUPPLY P.W.B.

BLOCK DIAGRAM


V1
SV1
AUDIO TO HiFi OUT
REMOTE CONTROL
POWER SW
CONTROL P.W.B.
SIGNAL P.W.B.
ANT SW
MTS DECODER M4001
TUNER FE0001
SYSTEM CONTROL IC0001
D/A 2 IC0004
D/A 1 IC0003
MEMORY IC0002
DYDAMIC BASS
PROLOGIC P.W.B.
BASS HARM HIX IC4611 F/C SEL IC4607
AUDIO CONTROL (CENTER) IC4608
PROLOGIC IC4609
TEST TONE GEN. IC4601~4604
SIGNAL SEL. IC4605
D/A 4 IC4609
AUDIO CONTROL (FRONT) IC4004
3WAY P.W.B
BASS HARM IC4427 IC4401~4403
AUDIO CONTROL (REAR) IC4416
SURROUND SEL. IC4405~4410
DOLBY-B NR IC4411~4415
SURROUND HALL/MATRIX /OFF/DOLBY IC4405~4409
V1
V2
V3
SV1
SV2
INPUT
MONITOR OUT
SDET
SDET
S SWITCH IC3005 LVA522S IC3006,3007 LA7016
A/V SWITCH IC3001
REAR SP TERMINAL
AUDIO OUTPUT (REAR) IC4003
TEST SIGNAL GEN IC2001
AUDIO OUTPUT (FRONT) IC4002
SP.TERMINAL P.W.B
TWEETER L
WOOFER L
WOOFER R
TWEETER R
D/A3 IC3302 μPD6326C
VIDEO SW IC3301 LVA522S
Y/C MIX
P IN P SIG.SEL.P.W.B.
3L COMB VER.ENHANCER
C
V-CNR
3
HC3020
L.S.P. IC301 HA11559NT
SW
C
Y
VIDEO CHROMA DEFELECTION IC501 HA11511CNT
B CORRECTION
Y
R-Y
G-Y
B-Y
RGB SW IC503 AN5352
AUTO FLESH H-CNR IC502 LA7697
P IN P UNIT
R
G
B
YS
HC3031
TRANS FORMER
RECTIFY
+12V
+5V
CPT P.W.B.
RED VIDEO OUTPUT
GREEN VIDEO OUTPUT
BLUE VIDEO OUTPUT
BEAM ALIGNMENT
CY
DY
R
FOCUS MAGNET
FOCUS COIL
G
B
AC INPUT
NOISE FILTER
RELAY RL901
POWER SUPPLY P.W.B.
RECTIFY
SWITCHING CIRCUIT IC901 μPC1094C
+B
+130V
AUDIO
+38V
CONVER
FOCUS
+25V
-25V
SIGNAL CONVER FOCUS
+12V
-12V
DEFLECTION P.W.B.
VER.OUT IC601 LA7838
HOR.DRIVE Q701
HOR.OUT Q777 SD1959
FBT T702
32KV
DY
CY
DIGITAL CONVERGENCE UNIT
CONVERGENCE OUT IC1301 STK4274 R
CONVERGENCE OUT IC1326 STK4274 G
CONVERGENCE OUT IC1351 STK4274 B
R/G/B
F.MAG.
HOR.DYNAMIC FOCUS
VER.DYNAMIC FOCUS
FOCUS OUT PUT IC1201 STK4275MB
R/G/B

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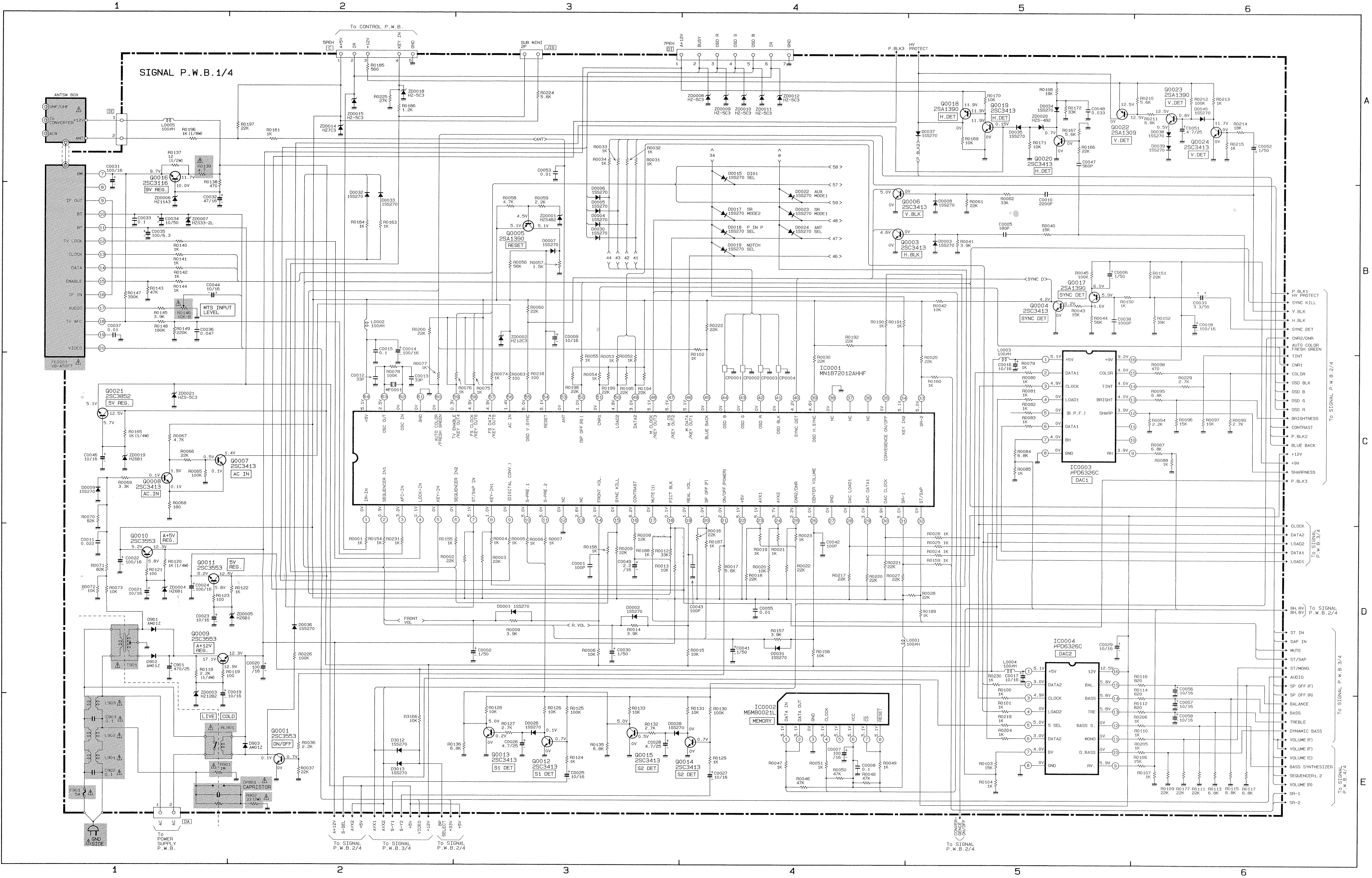
BASIC CIRCUIT DIAGRAM



SIGNAL P.W.B.1/4
ANTSW BOX
FE0001 VB-A58FT
To CONTROL P.W.B.
5PEH
SUB MINI 2P
7PEH
IC0001 MN1872012AHHF
IC0002 M6M80021L MEMORY
IC0003 μPD6326C DAC1
IC0004 μPD6326C DAC2
Q0016 2SC3116 9V REG.
Q0021 2SC3852 5V REG.
Q0007 2SC3413 AC IN
Q0008 2SC3413 AC.IN
Q0010 2SC3553 A+5V REG.
Q0011 2SC3553 5V REG.
Q0009 2SC3553 A+12V REG.
Q0001 2SC3553 ON/OFF
Q0005 2SA1390 RESET
Q0013 2SC3413 S1 DET
Q0012 2SC3413 S1 DET
Q0015 2SC3413 S2 DET
Q0014 2SC3413 S2 DET
Q0018 2SA1390 H.DET
Q0019 2SC3413 H.DET
Q0020 2SC3413 H.DET
Q0022 2SA1309 V.DET
Q0023 2SA1390 V.DET
Q0024 2SC3413 V.DET
Q0006 2SC3413 V.BLK
Q0003 2SC3413 H.BLK
Q0017 2SA1390 SYNC DET
Q0004 2SC3413 SYNC DET
MTS INPUT LEVEL
LIVE
COLD
CAPRISTOR
To POWER SUPPLY P.W.B.
To SIGNAL P.W.B.2/4
To SIGNAL P.W.B.3/4
To SIGNAL P.W.B.4/4
GND SIDE
1
2
3
4
5
6
A
B
C
D
E

·Since this is a basic diagram, the value of the parts is subject to be altered for improvement.
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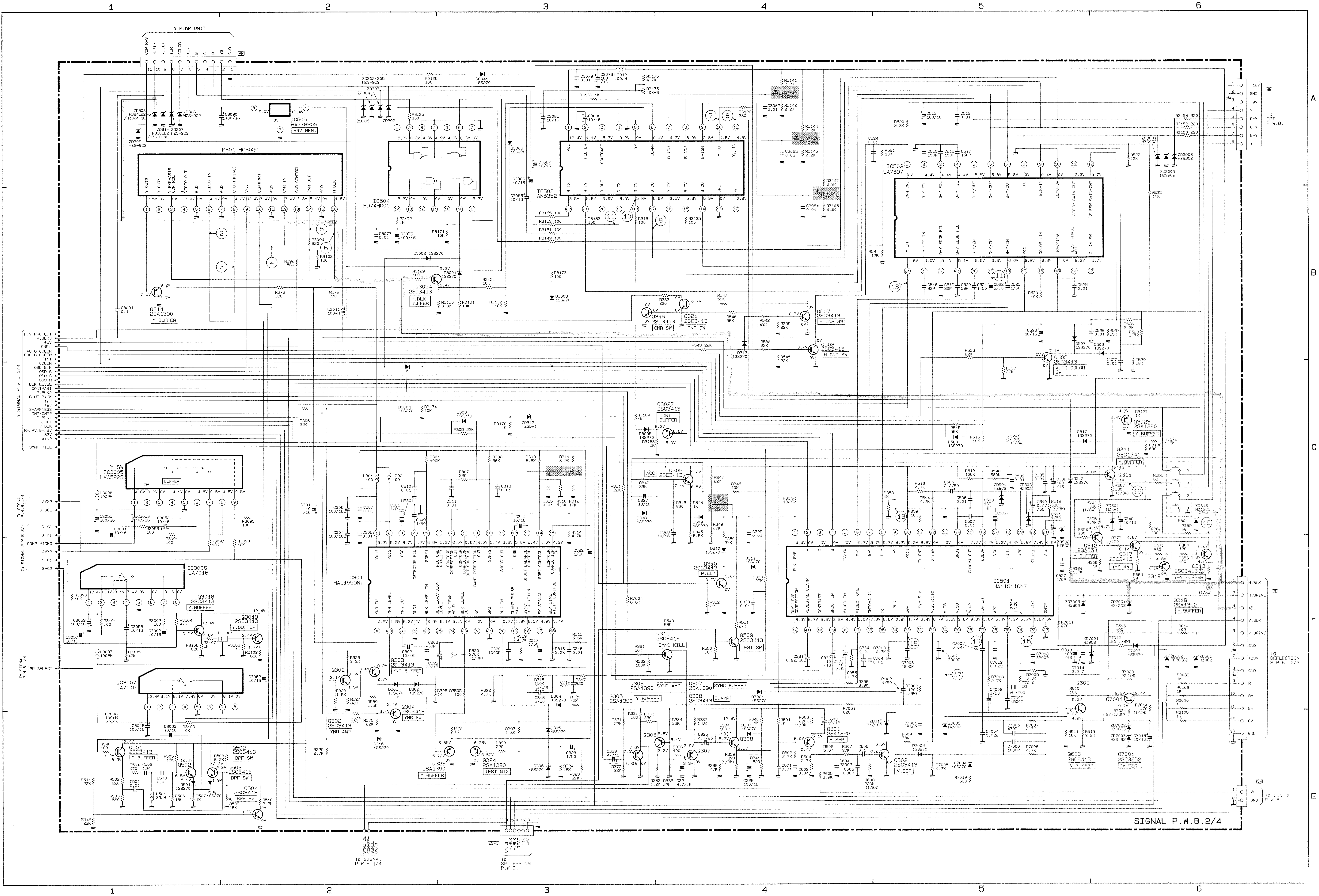
BASIC CIRCUIT DIAGRAM


To PinP UNIT
CONTRAST
H.BLK
V.BLK
TINT
COLOR
+9V
B
G
R
YS
GND
M301 HC3020
IC505 HA178M09 +9V REG.
IC504 HD74HC00
IC503 AN5352
IC502 LA7697
IC501 HA11511CNT
IC301 HA11559NT
IC3005 LVA522S Y-SW
IC3006 LA7016
IC3007 LA7016
Q314 2SA1390 Y.BUFFER
Q3024 2SC3413 H.BLK BUFFER
Q316 2SC3413 CNR SW
Q321 2SC3413 CNR SW
Q507 2SC3413 H.CNR SW
Q508 2SC3413 H.CNR SW
Q505 2SC3413 AUTO COLOR SW
Q3027 2SC3413 CONT BUFFER
Q309 2SC3413 ACC
Q310 2SC3413 P.BLK
Q315 2SC3413 SYNC KILL
Q509 2SC3413 TEST SW
Q3023 2SA1390 Y.BUFFER
Q311 2SC1741 Y.BUFFER
Q312 2SA854 Y.BUFFER
Q317 2SC3413 Y-Y SW
Q313 2SC3413 Y-Y BUFFER
Q318 2SA1390 Y.BUFFER
Q3018 2SC3413 Y.BUFFER
Q3019 2SC3413 Y.BUFFER
Q302 2SC3413 YNR AMP
Q303 2SC3413 YNR BUFFER
Q304 2SC3413 YNR SW
Q323 2SA1390 Y.BUFFER
Q324 2SA1390 TEST MIX
Q305 2SA1390 Y.BUFFER
Q306 2SA1390 SYNC AMP
Q307 2SA1390 SYNC BUFFER
Q308 2SC3413 CLAMP
Q601 2SA1390 V.SEP
Q602 2SC3413 V.SEP
Q603 2SC3413 V.BUFFER
Q7001 2SC3852 9V REG.
Q501 2SC3413 C.BUFFER
Q502 2SC3413 BPF SW
Q503 2SC3413 BPF SW
Q504 2SC3413 BPF SW
To SIGNAL P.W.B.1/4
H.V PROTECT
P.BLK3
+5V
CNR1
AUTO COLOR
FRESH GREEN
TINT
COLOR
OSD.BLK
OSD.B
OSD.G
OSD.R
BLK LEVEL
CONTRAST
P.BLK2
BLUE BACK
+12V
+9V
SHARPNESS
DNR/CNR2
P.BLK1
H.BLK
V.BLK
RH, RV, BH, BV
33V
A+12
SYNC KILL
AVX2
S-SEL
S-Y2
S-Y1
COMP VIDEO
S-C1
S-C2
BP SELECT
TO CPT P.W.B.
+12V
GND
+9V
Y
R-Y
G-Y
B-Y
TO DEFLECTION P.W.B. 2/2
H.BLK
H.DRIVE
ABL
V.BLK
V.DRIVE
+33V
RH
RV
BH
BV
TO CONTROL P.W.B.
VH
To SIGNAL P.W.B.1/4
SYNC DET
CONVER-GENCE ON/OFF
To SP TERMINAL P.W.B.
ON/OFF
H.BLK
V.BLK
TEST
+12
GND
SIGNAL P.W.B.2/4

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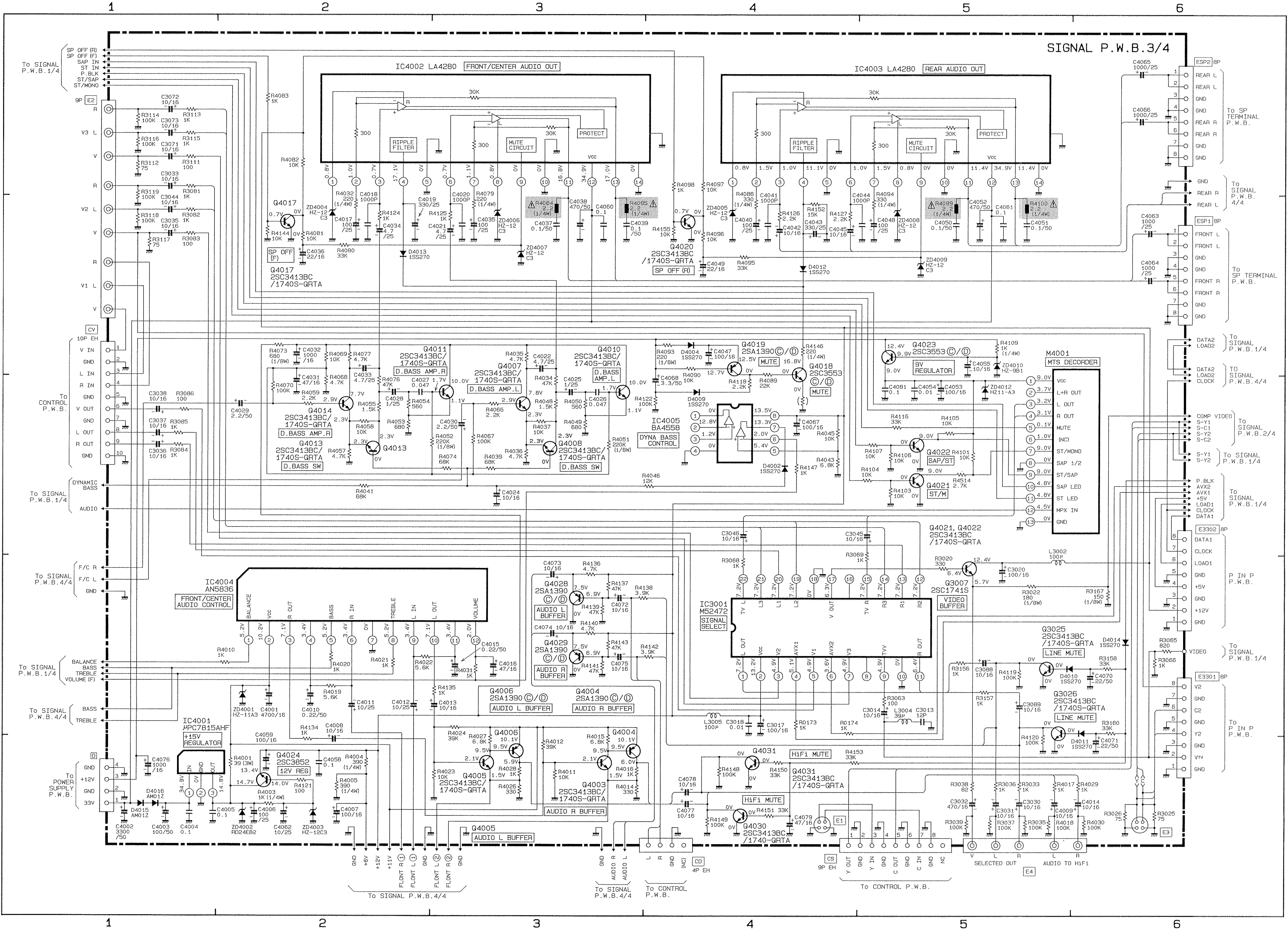
BASIC CIRCUIT DIAGRAM


SIGNAL P.W.B.3/4
IC4002 LA4280 FRONT/CENTER AUDIO OUT
IC4003 LA4280 REAR AUDIO OUT
RIPPLE FILTER
MUTE CIRCUIT
PROTECT
Q4017 2SC3413BC /1740S-QRTA
SP OFF (F)
Q4020 2SC3413BC /1740S-QRTA
SP OFF (R)
Q4011 2SC3413BC/ 1740S-QRTA D.BASS AMP.R
Q4007 2SC3413BC/ 1740S-QRTA D.BASS AMP.L
Q4010 2SC3413BC/ 1740S-QRTA D.BASS AMP.L
Q4014 2SC3413BC/ 1740S-QRTA D.BASS AMP.R
Q4013 2SC3413BC/ 1740S-QRTA D.BASS SW
Q4008 2SC3413BC/ 1740S-QRTA D.BASS SW
Q4019 2SA1390©/Ⓓ MUTE
Q4018 2SC3553©/Ⓓ MUTE
IC4005 BA4558 DYNA BASS CONTROL
Q4023 2SC3553©/Ⓓ 9V REGULATOR
M4001 MTS DECORDER
Q4022 SAP/ST
Q4021 ST/M
Q4021, Q4022 2SC3413BC /1740S-QRTA
IC4004 AN5836 FRONT/CENTER AUDIO CONTROL
Q4028 2SA1390©/Ⓓ AUDIO L BUFFER
Q4029 2SA1390©/Ⓓ AUDIO R BUFFER
IC3001 M52472 SIGNAL SELECT
Q3007 2SC1741S VIDEO BUFFER
Q3025 2SC3413BC /1740S-QRTA LINE MUTE
Q3026 2SC3413BC /1740S-QRTA LINE MUTE
IC4001 μPC7815AHF +15V REGULATOR
Q4024 2SC3852 12V REG
Q4006 2SA1390©/Ⓓ AUDIO L BUFFER
Q4004 2SA1390©/Ⓓ AUDIO R BUFFER
Q4005 2SC3413BC/ 1740S-QRTA
Q4003 2SC3413BC/ 1740S-QRTA AUDIO R BUFFER
Q4005 AUDIO L BUFFER
Q4031 2SC3413BC /1740S-QRTA HiFi MUTE
Q4030 2SC3413BC /1740-QRTA HiFi MUTE
To SIGNAL P.W.B.1/4
To CONTROL P.W.B.
To SIGNAL P.W.B.4/4
To POWER SUPPLY P.W.B.
To SP TERMINAL P.W.B.
To SIGNAL P.W.B.2/4
To P IN P P.W.B.
To SIGNAL P.W.B.4/4
To CONTROL P.W.B.
SELECTED OUT
AUDIO TO HiFi
ESP2 8P
ESP1 8P
E3302 8P
E3301 8P
CV 10P EH
CD 4P EH
CS 9P EH
E1 E2 E3 E4
1 2 3 4 5 6
A B C D E

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BASIC CIRCUIT DIAGRAM

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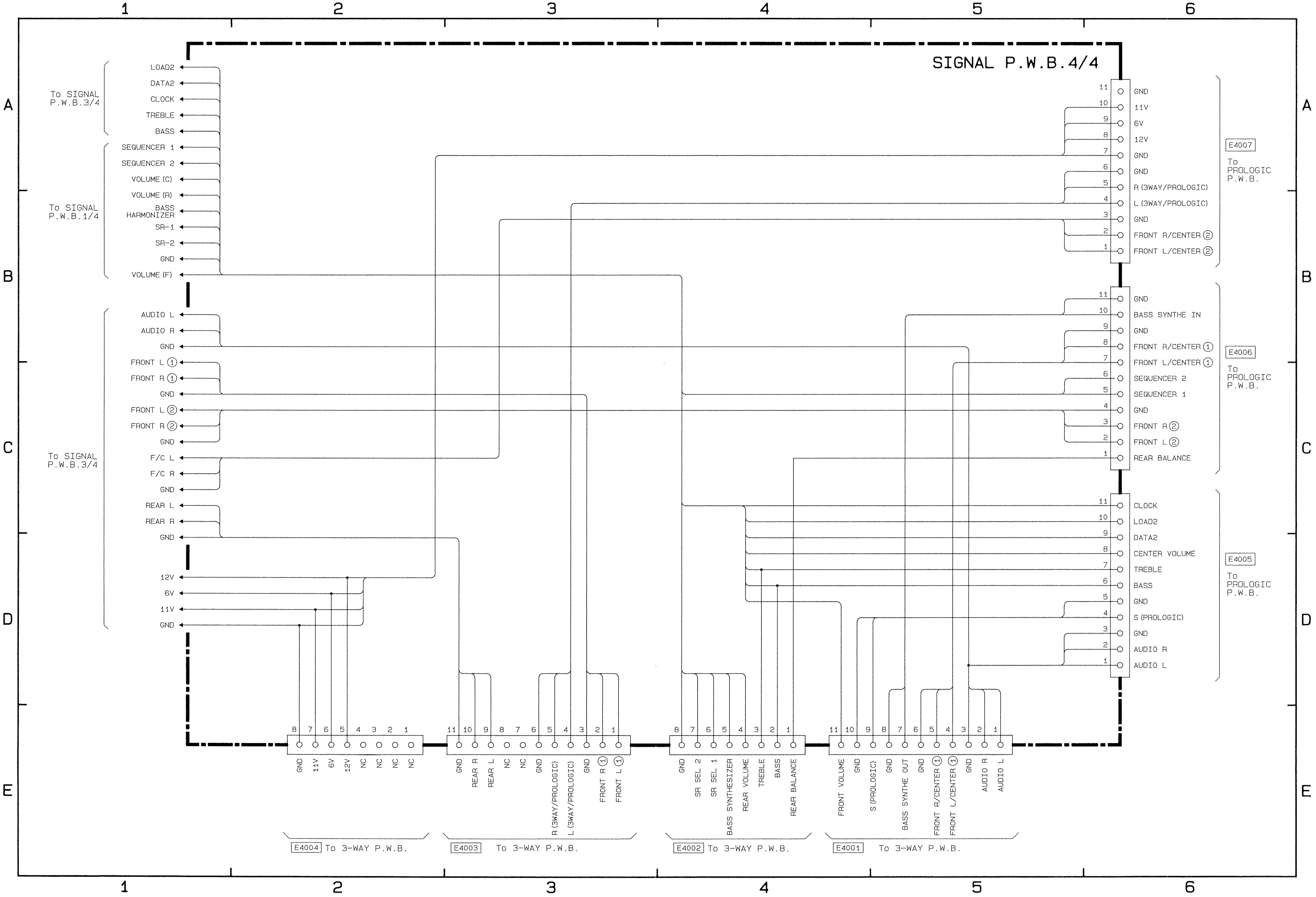

SIGNAL P.W.B.4/4
To SIGNAL P.W.B.3/4
LOAD2
DATA2
CLOCK
TREBLE
BASS
To SIGNAL P.W.B.1/4
SEQUENCER 1
SEQUENCER 2
VOLUME (C)
VOLUME (R)
BASS HARMONIZER
SR-1
SR-2
GND
VOLUME (F)
To SIGNAL P.W.B.3/4
AUDIO L
AUDIO R
GND
FRONT L ①
FRONT R ①
GND
FRONT L ②
FRONT R ②
GND
F/C L
F/C R
GND
REAR L
REAR R
GND
12V
6V
11V
GND
E4007
To PROLOGIC P.W.B.
11 GND
10 11V
9 6V
8 12V
7 GND
6 GND
5 R (3WAY/PROLOGIC)
4 L (3WAY/PROLOGIC)
3 GND
2 FRONT R/CENTER ②
1 FRONT L/CENTER ②
E4006
To PROLOGIC P.W.B.
11 GND
10 BASS SYNTHE IN
9 GND
8 FRONT R/CENTER ①
7 FRONT L/CENTER ①
6 SEQUENCER 2
5 SEQUENCER 1
4 GND
3 FRONT R ②
2 FRONT L ②
1 REAR BALANCE
E4005
To PROLOGIC P.W.B.
11 CLOCK
10 LOAD2
9 DATA2
8 CENTER VOLUME
7 TREBLE
6 BASS
5 GND
4 S (PROLOGIC)
3 GND
2 AUDIO R
1 AUDIO L
E4004 To 3-WAY P.W.B.
8 GND
7 11V
6 6V
5 12V
4 NC
3 NC
2 NC
1 NC
E4003 To 3-WAY P.W.B.
11 GND
10 REAR R
9 REAR L
8 NC
7 NC
6 GND
5 R (3WAY/PROLOGIC)
4 L (3WAY/PROLOGIC)
3 GND
2 FRONT R ①
1 FRONT L ①
E4002 To 3-WAY P.W.B.
8 GND
7 SR SEL 2
6 SR SEL 1
5 BASS SYNTHESIZER
4 REAR VOLUME
3 TREBLE
2 BASS
1 REAR BALANCE
E4001 To 3-WAY P.W.B.
11 FRONT VOLUME
10 GND
9 S (PROLOGIC)
8 GND
7 BASS SYNTHE OUT
6 GND
5 FRONT R/CENTER ①
4 FRONT L/CENTER ①
3 GND
2 AUDIO R
1 AUDIO L
1
2
3
4
5
6
A
B
C
D
E

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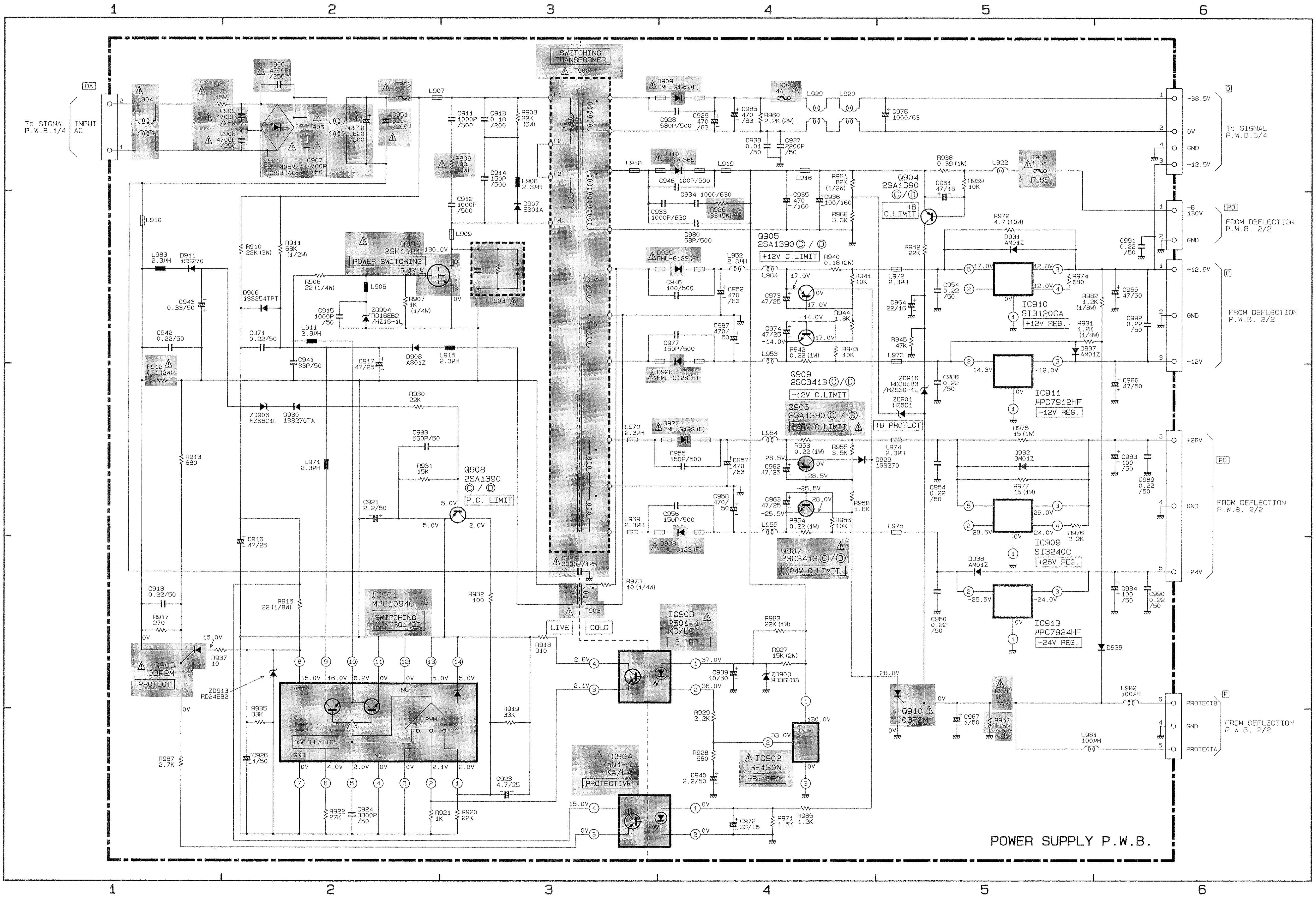
BASIC CIRCUIT DIAGRAM


1
2
3
4
5
6
A
B
C
D
E
POWER SUPPLY P.W.B.
DA
To SIGNAL P.W.B.1/4
INPUT AC
L904
R904 0.75 (15W)
C909 4700P /250
C908 4700P /250
C906 4700P /250
D901 RBV-406M /D3SB(A)60
C907 4700P /250
L905
F903 4A
C910 820 /200
C951 820 /200
L907
C911 1000P /500
C913 0.18 /200
R908 22K (5W)
R909 100 (7W)
C914 150P /500
L908 2.3µH
C912 1000P /500
D907 EG01A
L909
SWITCHING TRANSFORMER
T902
P1
P2
P3
P4
L910
L983 2.3µH
D911 1SS270
C943 0.33/50
C942 0.22/50
R912 0.1 (2W)
R910 22K (3W)
R911 68K (1/2W)
D906 1SS254TPT
C971 0.22/50
Q902 2SK1181
POWER SWITCHING
130.0V
6.1V
R906 22 (1/4W)
L906
R907 1K (1/4W)
C915 1000P /50
ZD904 RD16EB2 /HZ16-1L
L911 2.3µH
C941 33P/50
C917 47/25
D908 AS01Z
L915 2.3µH
CP903
ZD906 HZS6C1L
D930 1SS270TA
R930 22K
C988 560P/50
R931 15K
Q908 2SA1390 Ⓒ/Ⓓ
P.C. LIMIT
5.0V
2.0V
R913 680
L971 2.3µH
C921 2.2/50
C916 47/25
C918 0.22/50
R917 270
R915 22 (1/8W)
IC901 MPC1094C
SWITCHING CONTROL IC
R932 100
Q903 03P2M
PROTECT
15.0V
R937 10
ZD913 RD24EB2
R935 33K
C926 1/50
R967 2.7K
VCC
NC
PWM
OSCILLATION
GND
R919 33K
C923 4.7/25
R922 27K
C924 3300P /50
R921 1K
R920 22K
C927 3300P/125
T903
LIVE
COLD
R918 910
R973 10 (1/4W)
D909 FML-G12S (F)
C928 680P/500
C929 470 /63
C985 470 /63
R960 2.2K (2W)
F904 4A
L929
L920
C976 1000/63
C938 0.01 /50
C937 2200P /50
D910 FMG-G36S
L918
L919
C945 100P/500
C934 1000/630
C933 1000P/630
R926 33 (5W)
C980 68P/500
L916
C935 470 /160
C936 100/160
R961 82K (1/2W)
R968 3.3K
R938 0.39 (1W)
L922
F905 1.5A
FUSE
C961 47/16
R939 10K
Q904 2SA1390 Ⓒ/Ⓓ
+B C.LIMIT
R972 4.7 (10W)
D931 AM01Z
R952 22K
Q905 2SA1390 Ⓒ/Ⓓ
+12V C.LIMIT
R940 0.18 (2W)
R941 10K
D925 FML-G12S (F)
C946 100/500
L952 2.3µH
C952 470 /63
L984
C973 47/25
C974 47/25
R944 1.8K
R942 0.22 (1W)
R943 10K
C987 470/50
C977 150P/500
L953
D926 FML-G12S (F)
Q909 2SC3413 Ⓒ/Ⓓ
-12V C.LIMIT
Q906 2SA1390 Ⓒ/Ⓓ
+26V C.LIMIT
L972 2.3µH
C964 22/16
R945 47K
L973
ZD916 RD30EB3 /HZS30-1L
ZD901 HZ6C1
+B PROTECT
C954 0.22 /50
C986 0.22 /50
IC910 SI3120CA
+12V REG.
R974 680
R982 1.2K (1/8W)
R981 1.2K (1/8W)
D937 AM01Z
IC911 µPC7912HF
-12V REG.
C965 47/50
C966 47/50
C991 0.22 /50
C992 0.22 /50
L970 2.3µH
D927 FML-G12S (F)
C955 150P/500
C957 470 /63
L954
R953 0.22 (1W)
R955 3.5K
D929 1SS270
L974 2.3µH
C962 47/25
C958 470/50
C956 150P/500
C963 47/25
R954 0.22 (1W)
R956 10K
R958 1.8K
L969 2.3µH
D928 FML-G12S (F)
L955
L975
Q907 2SC3413 Ⓒ/Ⓓ
-24V C.LIMIT
R975 15 (1W)
D932 3M01Z
R977 15 (1W)
IC909 SI3240C
+26V REG.
R976 2.2K
C983 100 /50
C989 0.22 /50
D938 AM01Z
C960 0.22 /50
IC913 µPC7924HF
-24V REG.
C984 100 /50
C990 0.22 /50
D939
IC903 2501-1 KC/LC
+B. REG.
R983 22K (1W)
R927 15K (2W)
C939 10/50
ZD903 RD36EB3
R929 2.2K
R928 560
C940 2.2/50
IC902 SE130N
+B. REG.
IC904 2501-1 KA/LA
PROTECTIVE
C972 33/16
R971 1.5K
R965 1.2K
Q910 03P2M
R978 1K
C967 1/50
R957 1.5K
L982 100µH
L981 100µH
+38.5V
0V
GND
+12.5V
D
To SIGNAL P.W.B.3/4
+B 130V
PD
FROM DEFLECTION P.W.B. 2/2
+12.5V
P
-12V
+26V
-24V
PROTECTB
PROTECTA
P

·Since this is a basic diagram, the value of the parts is subject to be altered for improvement.
·All DC voltage to be measured with a tester (100k Ω/V). Voltage taken on a complex color bar signal Including a standard color bar signal.

BASIC CIRCUIT DIAGRAM

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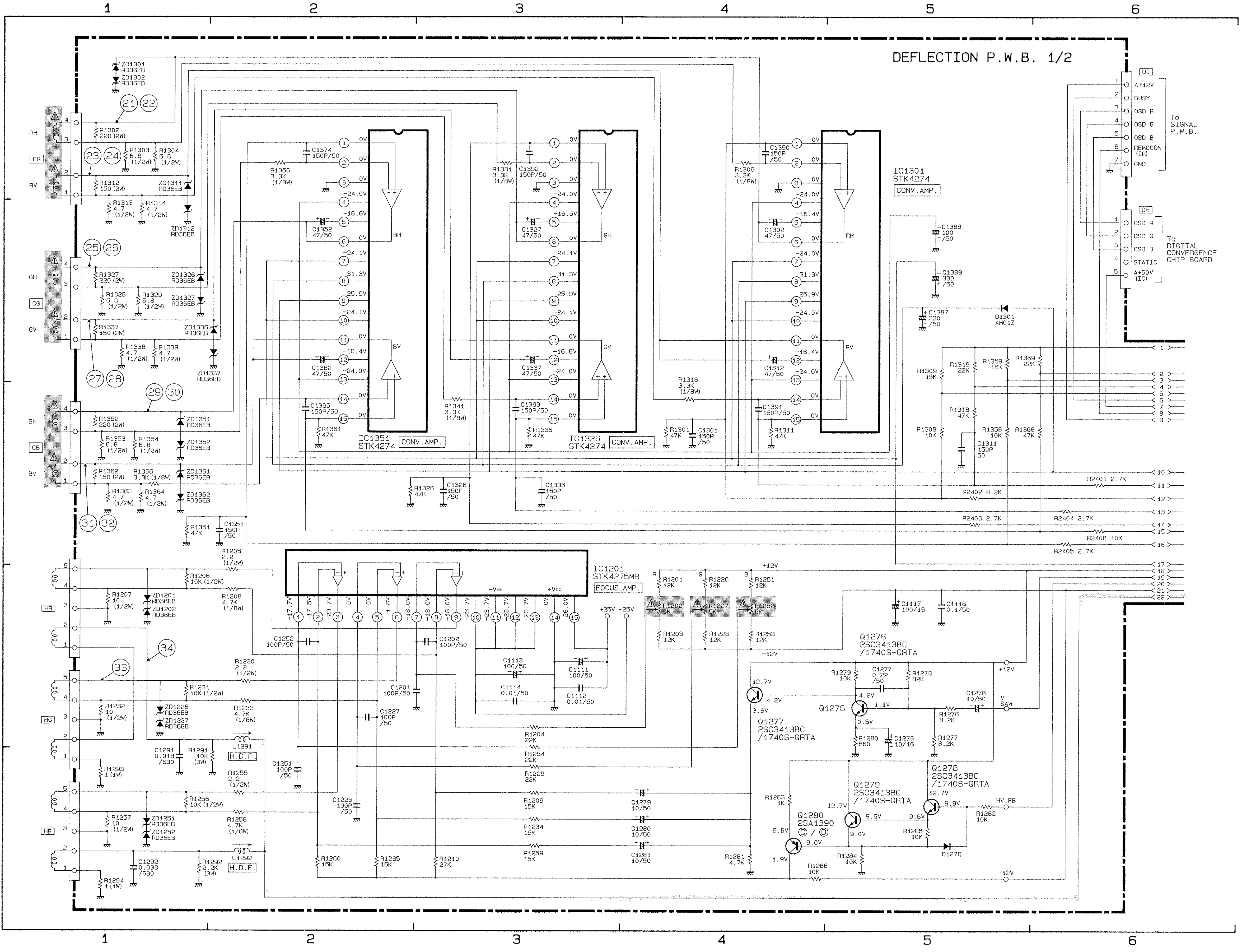
DEFLECTION P.W.B. 1/2
IC1351 STK4274 CONV. AMP.
IC1326 STK4274 CONV. AMP.
IC1301 STK4274 CONV. AMP.
IC1201 STK4275MB FOCUS AMP.
Q1276 2SC3413BC /1740S-QRTA
Q1277 2SC3413BC /1740S-QRTA
Q1278 2SC3413BC /1740S-QRTA
Q1279 2SC3413BC /1740S-QRTA
Q1280 2SA1390 Ⓒ / Ⓓ
D1301 AM01Z
D1276
DI
A+12V
BUSY
OSD R
OSD G
OSD B
REMOCON (IR)
GND
To SIGNAL P.W.B.
DH
STATIC
A+50V (IC)
To DIGITAL CONVERGENCE CHIP BOARD
RH
CR
RV
GH
CG
GV
BH
CB
BV
HR
HG
HB
H.D.F.
HV.FB
V SAW
+12V
-12V
+25V
-25V
1
2
3
4
5
6
A
B
C
D
E

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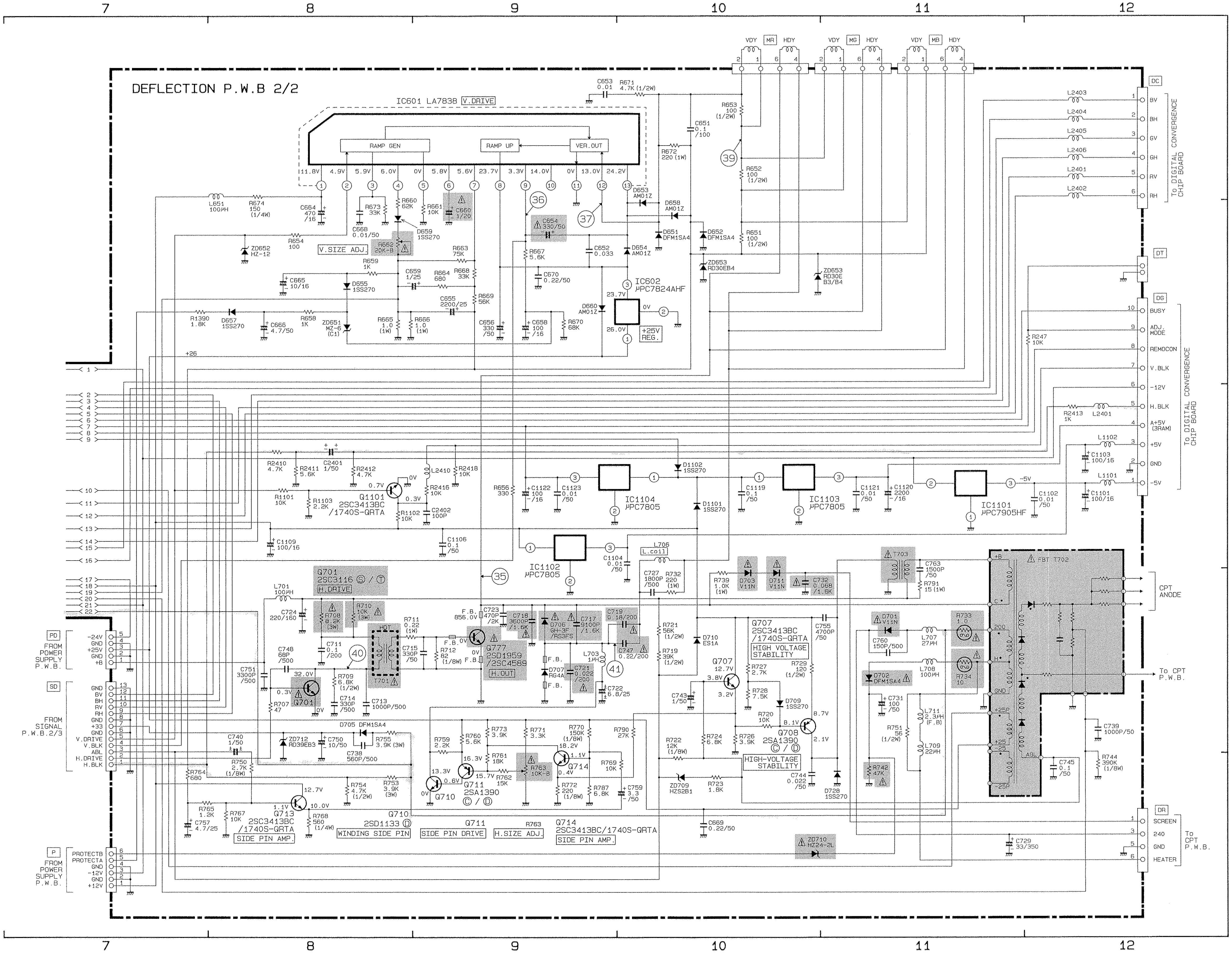
BASIC CIRCUIT DIAGRAM


7
8
9
10
11
12
A
B
C
D
E
DEFLECTION P.W.B 2/2
IC601 LA7838 V.DRIVE
RAMP GEN
RAMP UP
VER.OUT
V.SIZE ADJ.
IC602 μPC7824AHF
+25V REG.
IC1104 μPC7805
IC1103 μPC7805
IC1101 μPC7905HF
IC1102 μPC7805
Q1101 2SC3413BC /1740S-QRTA
Q701 2SC3116 Ⓢ / Ⓣ H.DRIVE
Q777 2SD1959 /2SC4589 H.OUT
Q707 2SC3413BC /1740S-QRTA HIGH VOLTAGE STABILITY
Q708 2SA1390 Ⓒ / Ⓓ HIGH-VOLTAGE STABILITY
Q713 2SC3413BC /1740S-QRTA SIDE PIN AMP.
Q710 2SD1133 Ⓓ WINDING SIDE PIN
Q711 2SA1390 Ⓒ / Ⓓ SIDE PIN DRIVE
R763 H.SIZE ADJ.
Q714 2SC3413BC/1740S-QRTA SIDE PIN AMP.
FBT T702
T701
T703
L706 L.coil
VDY MR HDY
VDY MG HDY
VDY MB HDY
DC
BV
BH
GV
GH
RV
RH
To DIGITAL CONVERGENCE CHIP BOARD
DT
DG
BUSY
ADJ. MODE
REMOCON
V.BLK
-12V
H.BLK
A+5V (3RAM)
+5V
GND
-5V
CPT ANODE
To CPT P.W.B.
DR
SCREEN
240
GND
HEATER
PD
FROM POWER SUPPLY P.W.B.
-24V
+25V
+B
SD
FROM SIGNAL P.W.B.2/3
+33
V.DRIVE
ABL
H.DRIVE
H.BLK
P
PROTECTB
PROTECTA
+12V

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·All DC voltage to be measured with a tester (100k Ω/V). Voltage taken on a complex color bar signal Including a standard color bar signal.

BASIC CIRCUIT DIAGRAM

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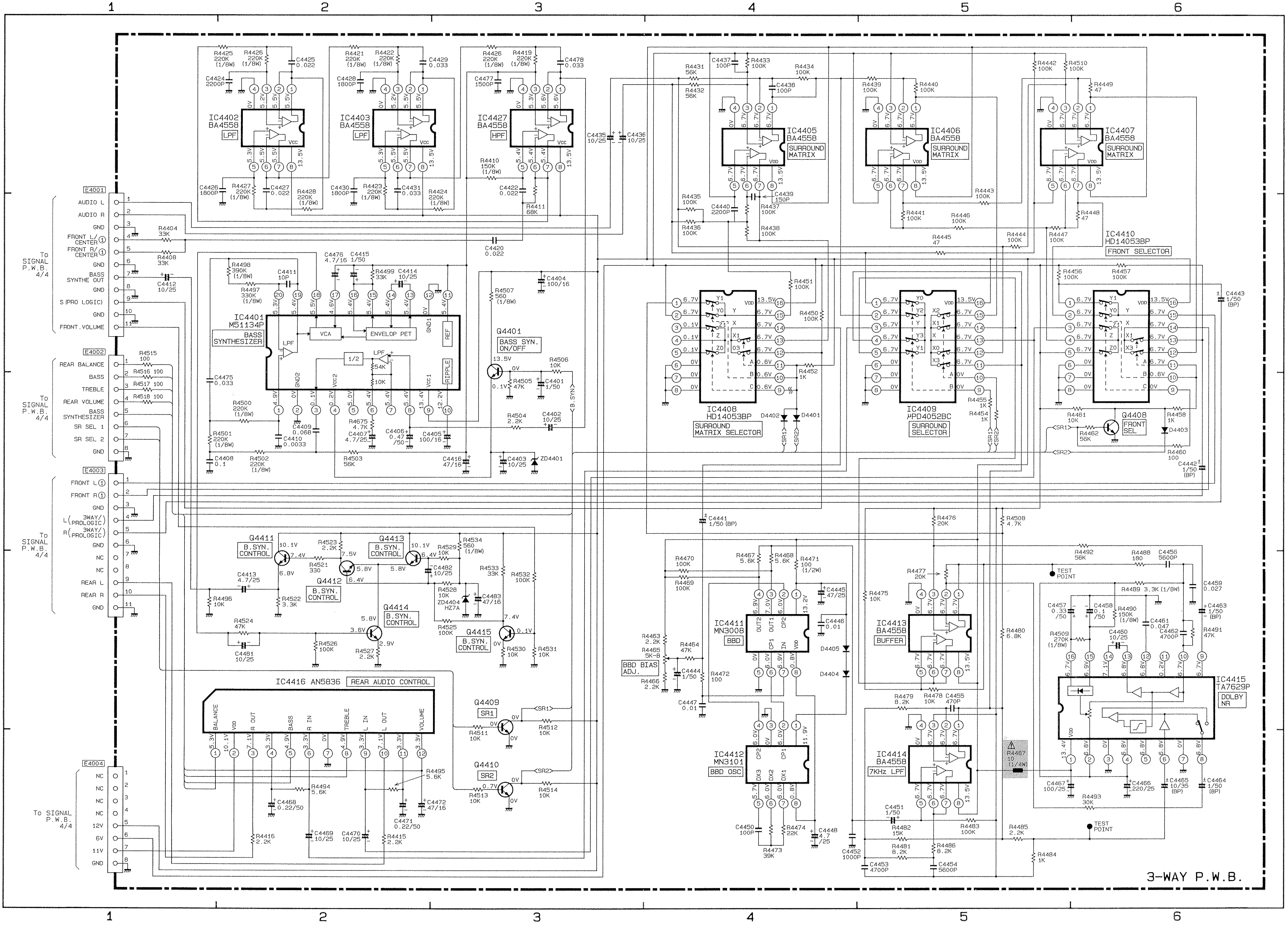

1
2
3
4
5
6
A
B
C
D
E
E4001
AUDIO L
AUDIO R
GND
FRONT L/CENTER
FRONT R/CENTER
BASS SYNTHE OUT
S (PRO LOGIC)
FRONT. VOLUME
To SIGNAL P.W.B. 4/4
E4002
REAR BALANCE
BASS
TREBLE
REAR VOLUME
BASS SYNTHESIZER
SR SEL 1
SR SEL 2
E4003
FRONT L
FRONT R
L (3WAY/PROLOGIC)
R (3WAY/PROLOGIC)
NC
REAR L
REAR R
E4004
12V
6V
11V
IC4402 BA4558 LPF
IC4403 BA4558 LPF
IC4427 BA4558 HPF
IC4405 BA4558 SURROUND MATRIX
IC4406 BA4558 SURROUND MATRIX
IC4407 BA4558 SURROUND MATRIX
IC4401 M51134P BASS SYNTHESIZER
VCA
ENVELOP PET
LPF
1/2
REF
RIPPLE
Q4401 BASS SYN. ON/OFF
IC4408 HD14053BP SURROUND MATRIX SELECTOR
IC4409 μPD4052BC SURROUND SELECTOR
IC4410 HD14053BP FRONT SELECTOR
Q4408 FRONT SEL
Q4411 B.SYN. CONTROL
Q4412 B.SYN. CONTROL
Q4413 B.SYN. CONTROL
Q4414 B.SYN. CONTROL
Q4415 B.SYN. CONTROL
IC4416 AN5836 REAR AUDIO CONTROL
BALANCE
VDD
R OUT
BASS
R IN
TREBLE
L IN
L OUT
VOLUME
Q4409 SR1
Q4410 SR2
IC4411 MN3008 BBD
IC4412 MN3101 BBD OSC
BBD BIAS ADJ.
IC4413 BA4558 BUFFER
IC4414 BA4558 7KHz LPF
IC4415 TA7629P DOLBY NR
TEST POINT
R4487 10 (1/4W)
3-WAY P.W.B.

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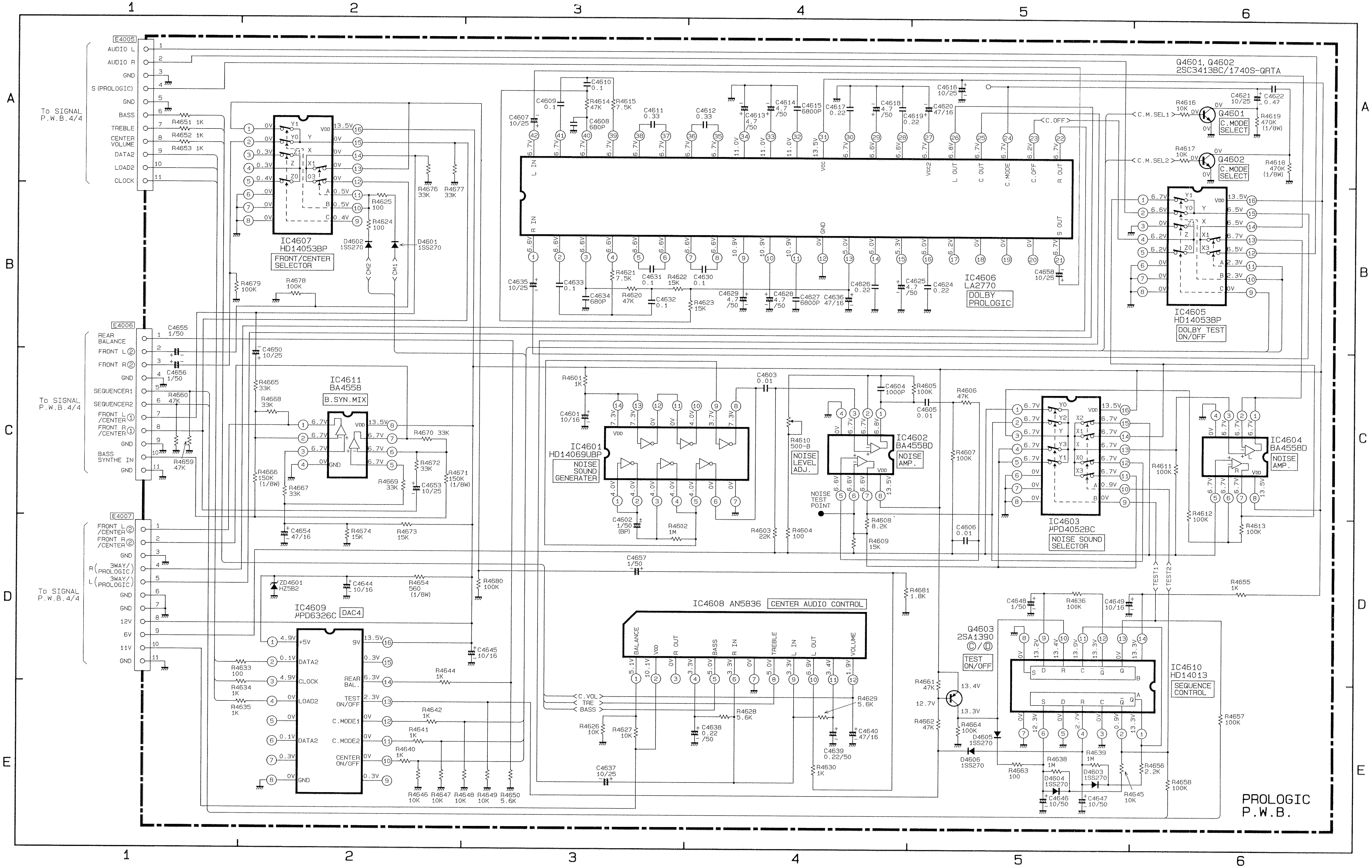
BASIC CIRCUIT DIAGRAM


E4005
AUDIO L
AUDIO R
GND
S (PROLOGIC)
BASS
TREBLE
CENTER VOLUME
DATA2
LOAD2
CLOCK
To SIGNAL P.W.B.4/4
IC4607
HD14053BP
FRONT/CENTER SELECTOR
IC4606
LA2770
DOLBY PROLOGIC
Q4601, Q4602
2SC3413BC/1740S-QRTA
Q4601
C.MODE SELECT
Q4602
C.MODE SELECT
C.M.SEL1
C.M.SEL2
C.OFF
IC4605
HD14053BP
DOLBY TEST ON/OFF
E4006
REAR BALANCE
FRONT L②
FRONT R②
SEQUENCER1
SEQUENCER2
FRONT L/CENTER①
FRONT R/CENTER①
BASS SYNTHE IN
IC4611
BA4558
B.SYN.MIX
IC4601
HD14069UBP
NOISE SOUND GENERATOR
IC4602
BA4558D
NOISE AMP.
NOISE LEVEL ADJ.
NOISE TEST POINT
IC4603
µPD4052BC
NOISE SOUND SELECTOR
IC4604
BA4558D
NOISE AMP.
E4007
FRONT L/CENTER②
FRONT R/CENTER②
R (3WAY/PROLOGIC)
L (3WAY/PROLOGIC)
12V
6V
11V
To SIGNAL P.W.B.4/4
ZD4601
HZ5B2
IC4609
µPD6326C
DAC4
IC4608 AN5836
CENTER AUDIO CONTROL
C.VOL
TRE
BASS
Q4603
2SA1390
TEST ON/OFF
TEST1
TEST2
IC4610
HD14013
SEQUENCE CONTROL
PROLOGIC P.W.B.

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BASIC CIRCUIT DIAGRAM

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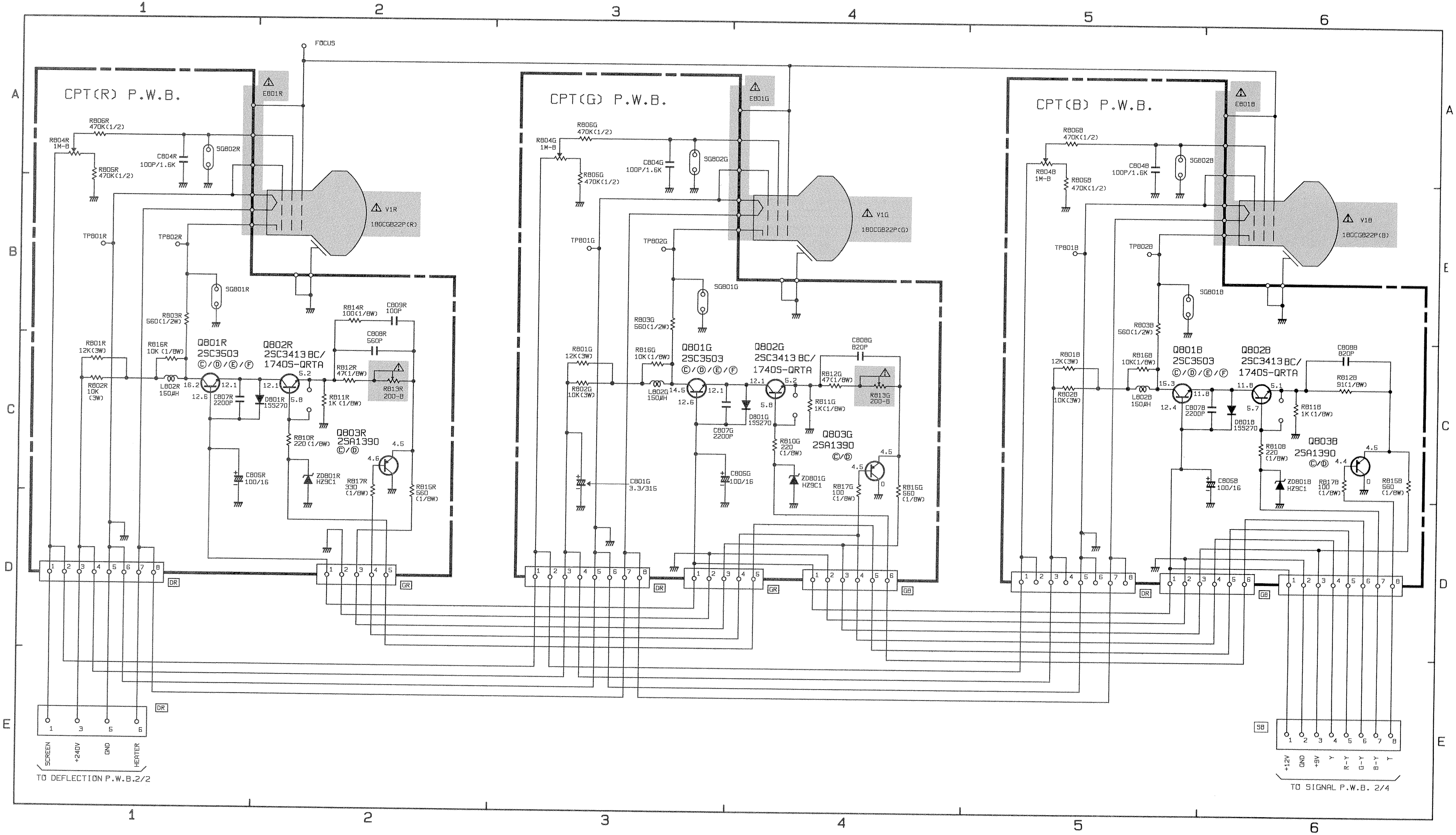
1
2
3
4
5
6
A
B
C
D
E
FOCUS
CPT(R) P.W.B.
E801R
R806R 470K(1/2)
R804R 1M-B
R805R 470K(1/2)
C804R 100P/1.6K
SG802R
V1R 180CGB22P(R)
TP801R
TP802R
SG801R
R803R 560(1/2W)
R801R 12K(3W)
R802R 10K (3W)
R816R 10K (1/8W)
L802R 150μH
Q801R 2SC3503 Ⓒ/Ⓓ/Ⓔ/Ⓕ
Q802R 2SC3413 BC/ 1740S-QRTA
C807R 2200P
D801R 1SS270
R814R 100(1/8W)
C809R 100P
C808R 560P
R812R 47(1/8W)
R813R 200-B
R811R 1K (1/8W)
R810R 220 (1/8W)
Q803R 2SA1390 Ⓒ/Ⓓ
C805R 100/16
ZD801R HZ9C1
R817R 330 (1/8W)
R815R 560 (1/8W)
16.2
12.1
12.6
12.1
5.2
5.8
4.6
4.5
DR
GR
CPT(G) P.W.B.
E801G
R806G 470K(1/2)
R804G 1M-B
R805G 470K(1/2)
C804G 100P/1.6K
SG802G
V1G 180CGB22P(G)
TP801G
TP802G
SG801G
R803G 560(1/2W)
R801G 12K(3W)
R802G 10K(3W)
R816G 10K(1/8W)
L802G 150μH
Q801G 2SC3503 Ⓒ/Ⓓ/Ⓔ/Ⓕ
Q802G 2SC3413 BC/ 1740S-QRTA
C808G 820P
R812G 47(1/8W)
R813G 200-B
R811G 1K(1/8W)
D801G 1SS270
C807G 2200P
R810G 220 (1/8W)
Q803G 2SA1390 Ⓒ/Ⓓ
C805G 100/16
C801G 3.3/315
ZD801G HZ9C1
R817G 100 (1/8W)
R815G 560 (1/8W)
14.5
12.1
12.6
12.1
5.2
5.8
4.5
4.5
0
DR
GR
GB
CPT(B) P.W.B.
E801B
R806B 470K(1/2)
R804B 1M-B
R805B 470K(1/2)
C804B 100P/1.6K
SG802B
V1B 180CGB22P(B)
TP801B
TP802B
SG801B
R803B 560(1/2W)
R801B 12K(3W)
R802B 10K(3W)
R816B 10K(1/8W)
L802B 150μH
Q801B 2SC3503 Ⓒ/Ⓓ/Ⓔ/Ⓕ
Q802B 2SC3413 BC/ 1740S-QRTA
C808B 820P
R812B 91(1/8W)
C807B 2200P
D801B 1SS270
R811B 1K (1/8W)
R810B 220 (1/8W)
Q803B 2SA1390 Ⓒ/Ⓓ
C805B 100/16
ZD801B HZ9C1
R817B 100 (1/8W)
R815B 560 (1/8W)
15.3
11.8
12.4
11.8
5.1
5.7
4.6
4.4
0
DR
GB
DR
1 3 5 6
SCREEN
+240V
GND
HEATER
TO DEFLECTION P.W.B.2/2
SB
1 2 3 4 5 6 7 8
+12V
GND
+9V
Y
R-Y
G-Y
B-Y
T
TO SIGNAL P.W.B. 2/4

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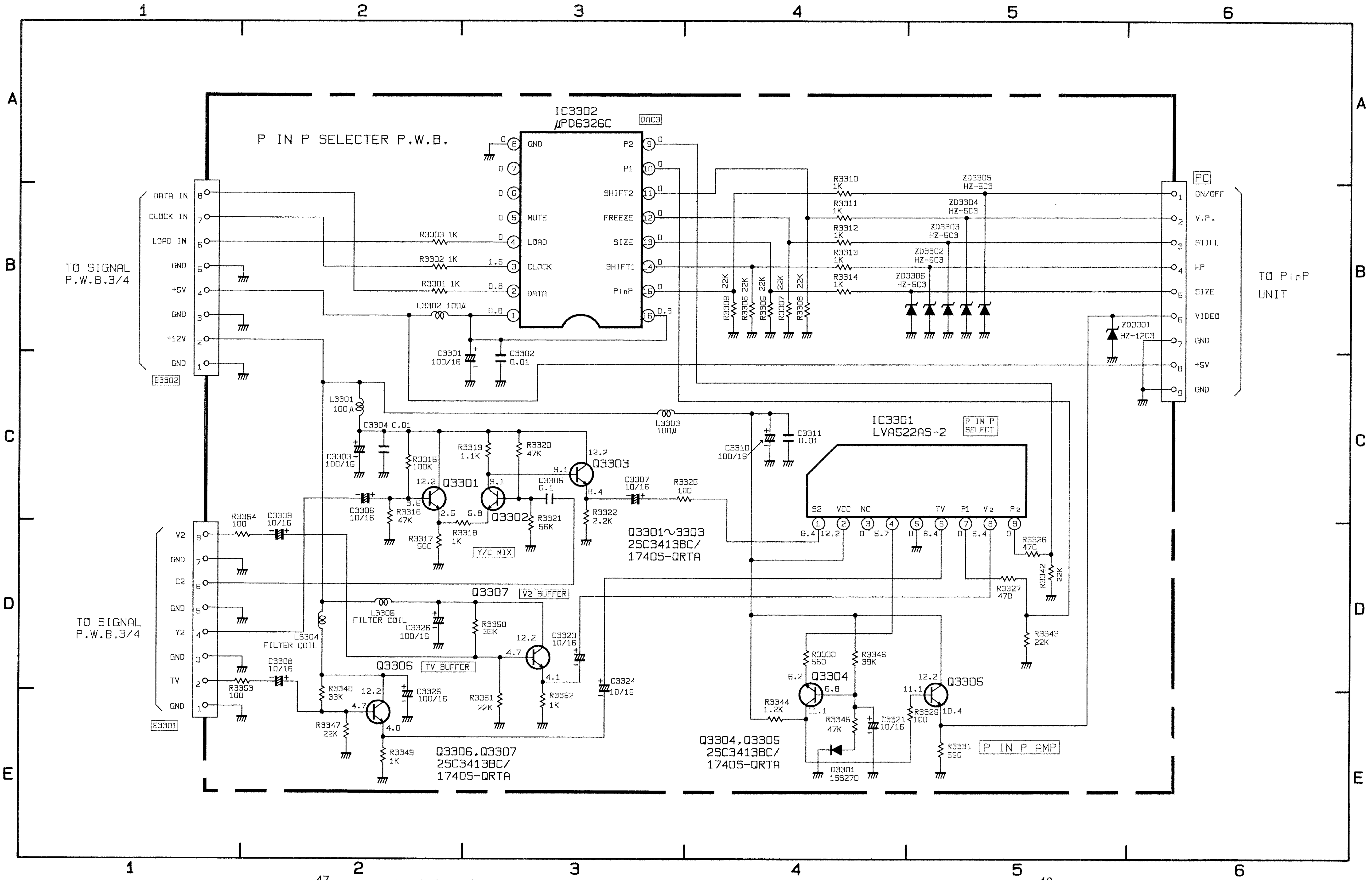
BASIC CIRCUIT DIAGRAM


1
2
3
4
5
6
A
B
C
D
E
P IN P SELECTER P.W.B.
IC3302
μPD6326C
DAC3
GND
MUTE
LOAD
CLOCK
DATA
P2
P1
SHIFT2
FREEZE
SIZE
SHIFT1
PinP
TO SIGNAL P.W.B.3/4
DATA IN
CLOCK IN
LOAD IN
GND
+5V
GND
+12V
GND
E3302
R3303 1K
R3302 1K
R3301 1K
L3302 100μ
C3301 100/16
C3302 0.01
R3310 1K
R3311 1K
R3312 1K
R3313 1K
R3314 1K
R3309 22K
R3306 22K
R3305 22K
R3307 22K
R3308 22K
ZD3305 HZ-5C3
ZD3304 HZ-5C3
ZD3303 HZ-5C3
ZD3302 HZ-5C3
ZD3306 HZ-5C3
ZD3301 HZ-12C3
PC
ON/OFF
V.P.
STILL
HP
SIZE
VIDEO
GND
+5V
GND
TO PinP UNIT
L3301 100μ
C3304 0.01
C3303 100/16
R3315 100K
R3319 1.1K
R3320 47K
Q3301
Q3302
Q3303
C3305 0.1
C3306 10/16
R3316 47K
R3317 560
R3318 1K
R3321 56K
R3322 2.2K
C3307 10/16
R3325 100
Y/C MIX
Q3301~3303
2SC3413BC/
1740S-QRTA
L3303 100μ
C3310 100/16
C3311 0.01
IC3301
LVA522AS-2
P IN P SELECT
S2
VCC
NC
TV
P1
V2
P2
R3326 470
R3342 22K
R3327 470
R3343 22K
TO SIGNAL P.W.B.3/4
V2
GND
C2
GND
Y2
GND
TV
GND
E3301
R3354 100
C3309 10/16
C3308 10/16
R3353 100
L3304 FILTER COIL
L3305 FILTER COIL
C3326 100/16
Q3307
V2 BUFFER
R3350 33K
C3323 10/16
Q3306
TV BUFFER
R3348 33K
C3325 100/16
R3351 22K
R3352 1K
C3324 10/16
R3347 22K
R3349 1K
Q3306,Q3307
2SC3413BC/
1740S-QRTA
R3330 560
R3346 39K
Q3304
Q3305
R3344 1.2K
R3345 47K
C3321 10/16
R3329 100
R3331 560
D3301 1SS270
Q3304,Q3305
2SC3413BC/
1740S-QRTA
P IN P AMP

·Since this is a basic diagram, the value of the parts is subject to be altered for improvement.
·All DC voltage to be measured with a tester (100k Ω/V). Voltage taken on a complex color bar signal Including a standard color bar signal.

BASIC CIRCUiT DIAGRAM

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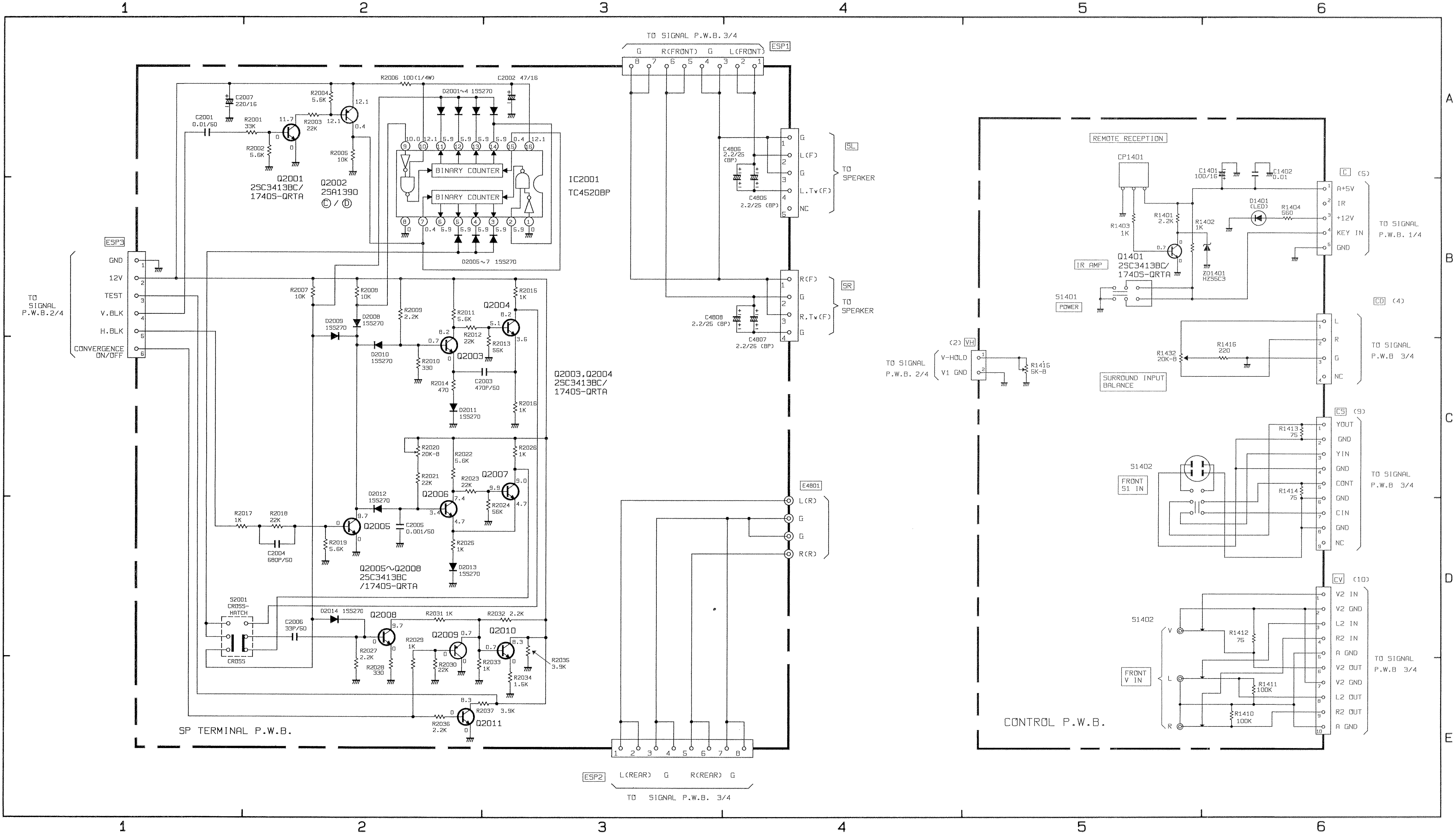

1 2 3 4 5 6
A B C D E
TO SIGNAL P.W.B. 3/4
G R(FRONT) G L(FRONT)
ESP1
R2006 100(1/4W)
C2002 47/16
C2007 220/16
R2004 5.6K
12.1
D2001~4 1SS270
C2001 0.01/50
R2001 33K
11.7
R2003 22K
12.1
0.4
R2002 5.6K
R2005 10K
Q2001 2SC3413BC/ 1740S-QRTA
Q2002 2SA1390 Ⓒ/Ⓓ
BINARY COUNTER
BINARY COUNTER
IC2001 TC4520BP
D2005~7 1SS270
C4806 2.2/25 (BP)
C4805 2.2/25 (BP)
G L(F) G L.Tw(F) NC
SL
TO SPEAKER
R(F) G R.Tw(F) G
SR
C4808 2.2/25 (BP)
C4807 2.2/25 (BP)
ESP3
GND 12V TEST V.BLK H.BLK CONVERGENCE ON/OFF
TO SIGNAL P.W.B.2/4
R2007 10K
R2008 10K
D2008 1SS270
D2009 1SS270
R2009 2.2K
R2011 5.6K
R2015 1K
Q2004
8.2
5.1
3.6
R2012 22K
R2013 56K
0.7
Q2003
D2010 1SS270
R2010 330
R2014 470
C2003 470P/50
D2011 1SS270
R2016 1K
Q2003,Q2004 2SC3413BC/ 1740S-QRTA
R2020 20K-B
R2022 5.6K
R2026 1K
R2021 22K
R2023 22K
Q2007
9.9
9.0
Q2006
7.4
3.4
4.7
R2024 56K
D2012 1SS270
R2017 1K
R2018 22K
8.7
Q2005
C2005 0.001/50
C2004 680P/50
R2019 5.6K
R2025 1K
D2013 1SS270
Q2005~Q2008 2SC3413BC /1740S-QRTA
E4801
L(R) G G R(R)
S2001 CROSS-HATCH
CROSS
C2006 33P/50
D2014 1SS270
Q2008
9.7
R2031 1K
R2032 2.2K
Q2009
Q2010
R2027 2.2K
R2028 330
R2029 1K
R2030 22K
R2033 1K
R2034 1.5K
R2035 3.9K
8.3
R2037 3.9K
R2036 2.2K
Q2011
SP TERMINAL P.W.B.
ESP2
L(REAR) G R(REAR) G
TO SIGNAL P.W.B. 3/4
REMOTE RECEPTION
CP1401
C1401 100/16
C1402 0.01
D1401 (LED)
R1404 560
R1403 1K
R1401 2.2K
R1402 1K
Q1401 2SC3413BC/ 1740S-QRTA
ZD1401 HZ5C3
IR AMP
S1401 POWER
C (5)
A+5V IR +12V KEY IN GND
TO SIGNAL P.W.B. 1/4
CD (4)
L R G NC
R1416 220
R1432 20K-B
SURROUND INPUT BALANCE
TO SIGNAL P.W.B 3/4
(2) VH
V-HOLD V1 GND
TO SIGNAL P.W.B. 2/4
R1415 5K-B
CS (9)
YOUT GND YIN GND CONT GND CIN GND NC
R1413 75
R1414 75
S1402
FRONT S1 IN
TO SIGNAL P.W.B 3/4
CV (10)
V2 IN V2 GND L2 IN R2 IN A GND V2 OUT V2 GND L2 OUT R2 OUT A GND
S1402
V L R
FRONT V IN
R1412 75
R1411 100K
R1410 100K
TO SIGNAL P.W.B 3/4
CONTROL P.W.B.

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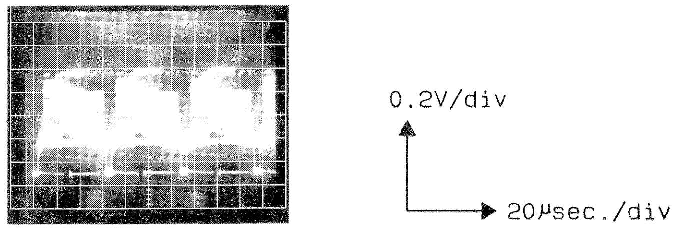
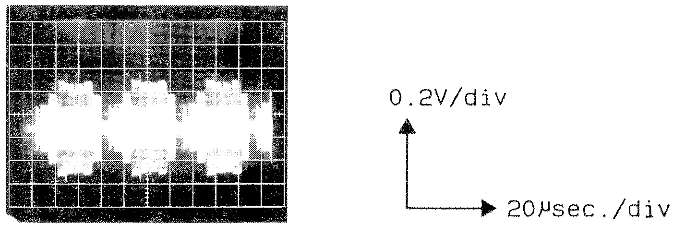
WAVEFORMS AT EACH SECTION

SIGNAL P.W.B. (2/4)

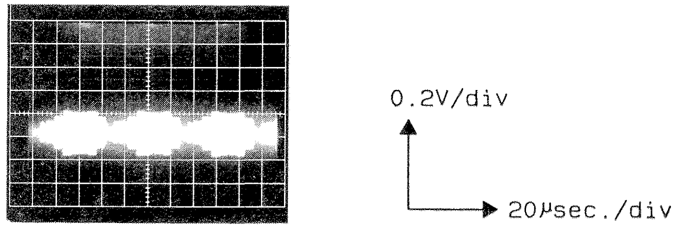
① M301 ⑥ pin



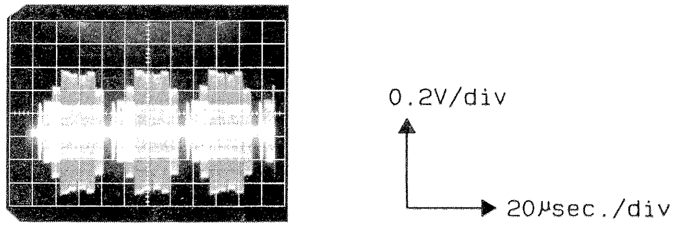
② M301 ⑧ pin



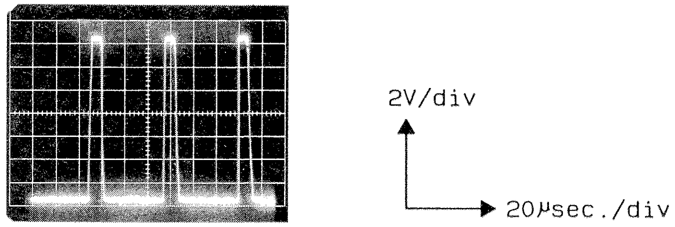
③ M301 ⑩ pin



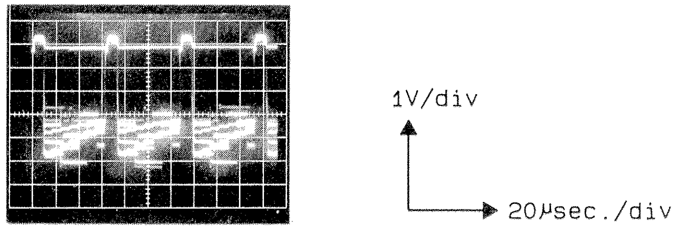
④ M301 ⑭ pin



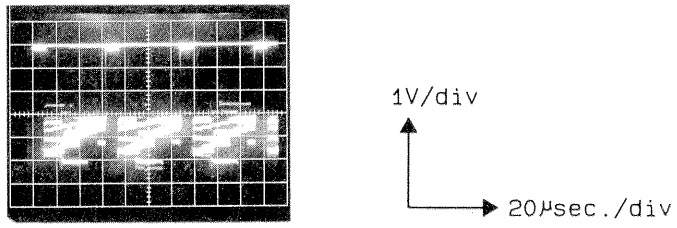
⑤ M301 ⑯ pin



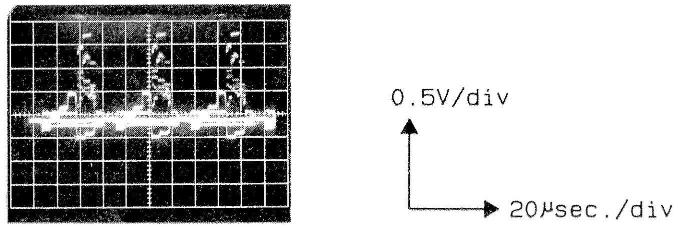
⑥ IC503 ⑩ pin



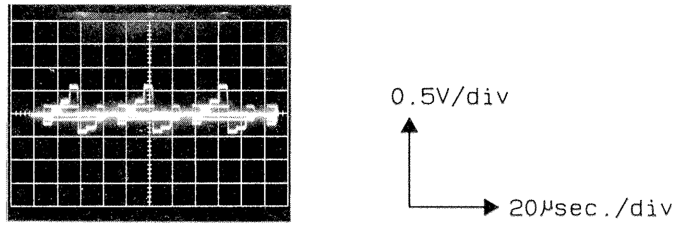
⑦ IC503 ⑪ pin



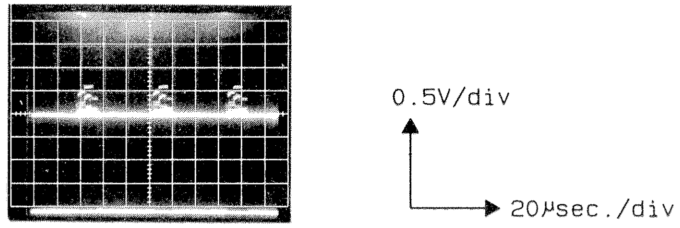
⑧ IC503 ⑰ pin



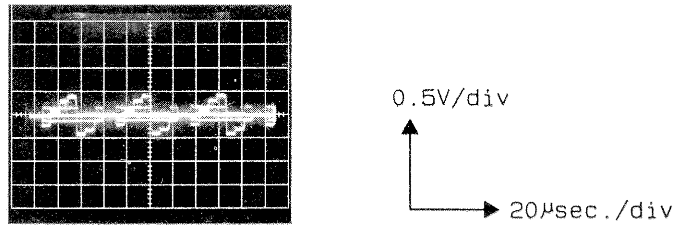
⑨ IC503 ⑱ pin



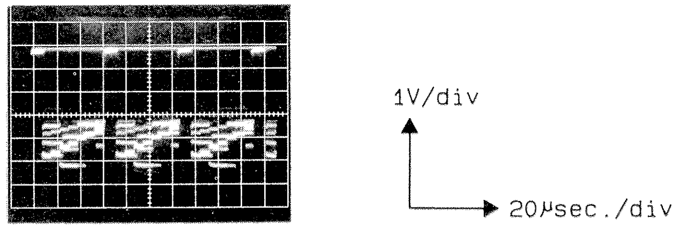
⑩ IC503 ⑲ pin



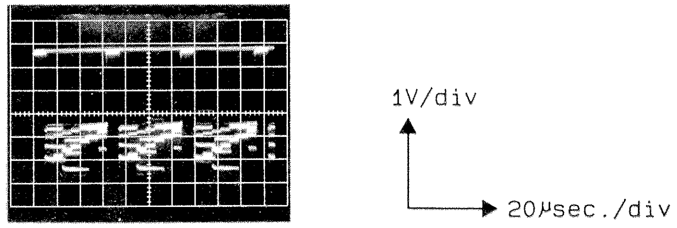
⑪ IC502 ⑲ pin



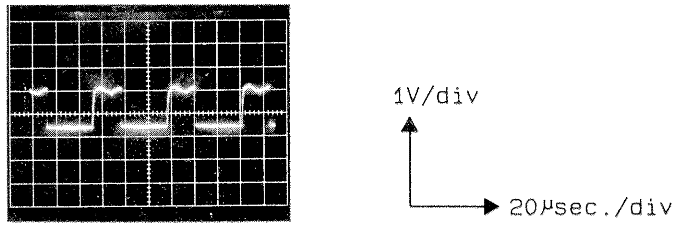
⑫ IC502 ㉔ pin



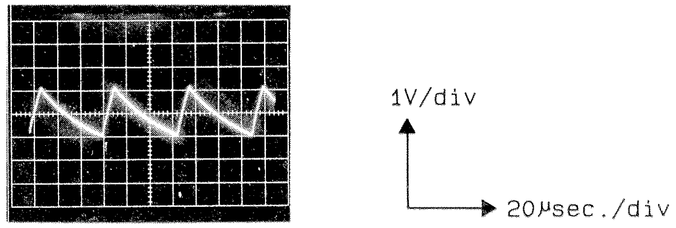
⑬ IC501 ⑨ pin



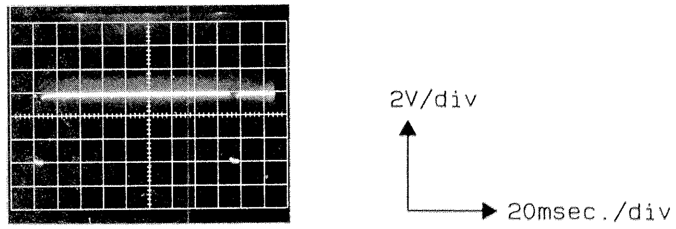
⑭ IC501 ㉓ pin



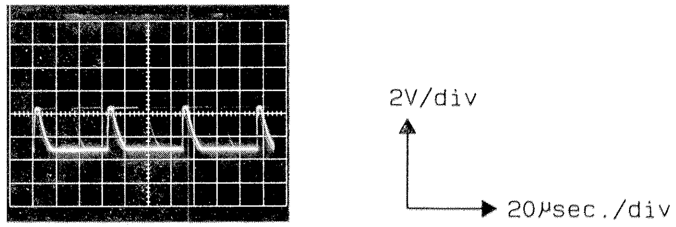
⑮ IC501 ㉗ pin



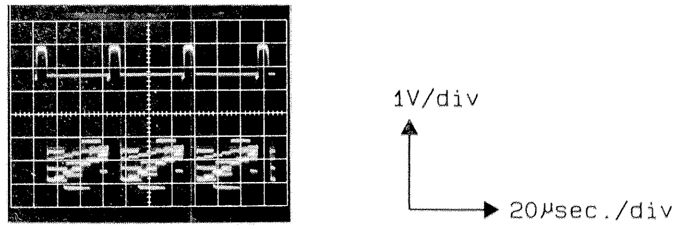
⑯ IC501 ㉚ pin



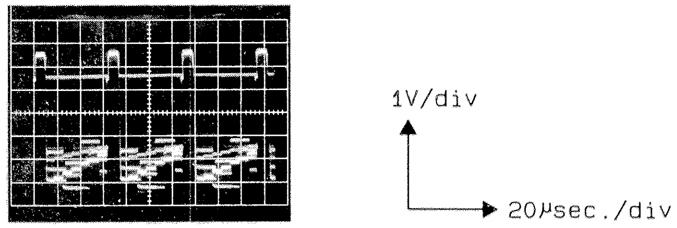
⑰ IC501 ㉝ pin



⑱ Q311 emitter

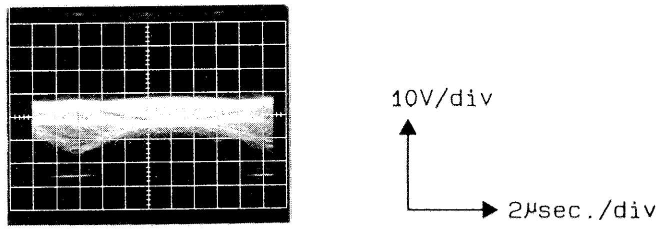


⑲ Q313 emitter

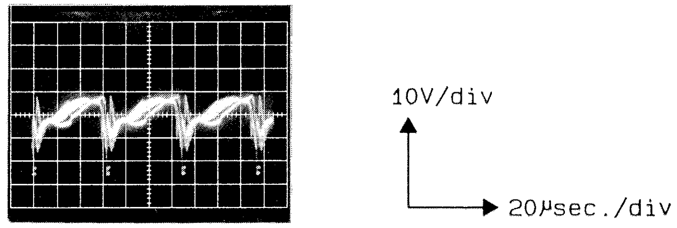


DEFLECTION P.W.B. (1/2)

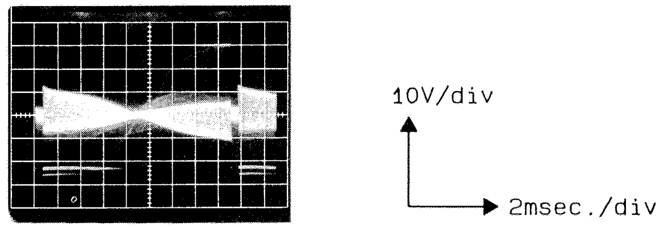
⑳ CR connector ③ pin



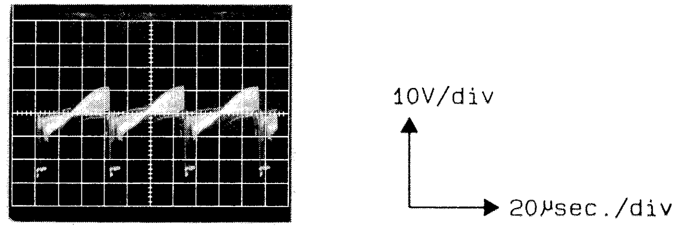
㉑ CR connector ③ pin



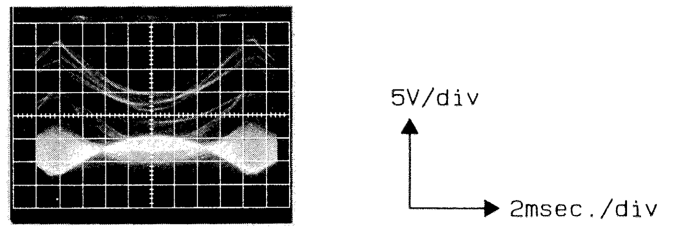
㉒ CR connector ② pin



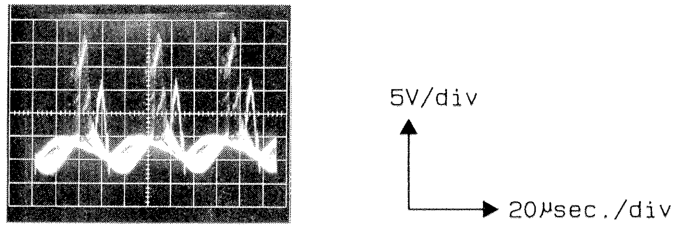
㉓ CR connector ② pin



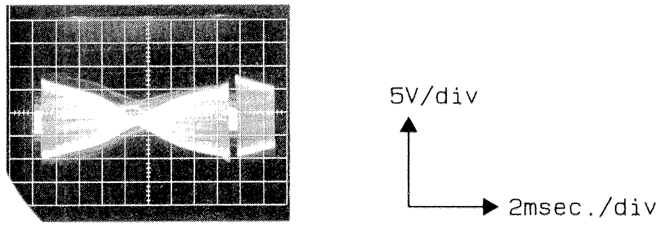
㉔ CG connector ④ pin



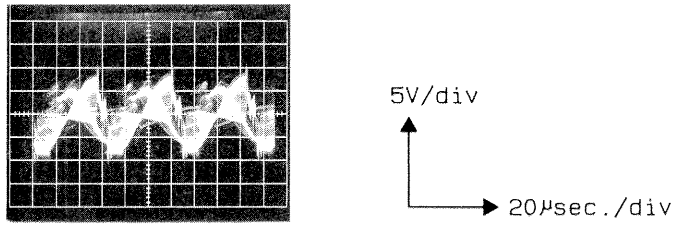
㉕ CG connector ④ pin



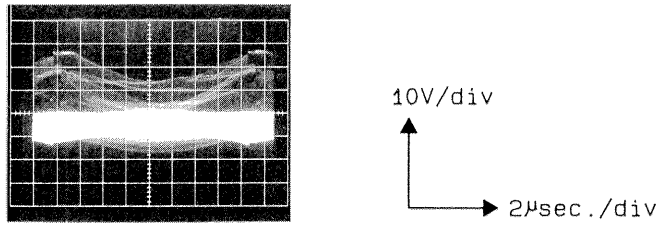
㉖ CG connector ② pin



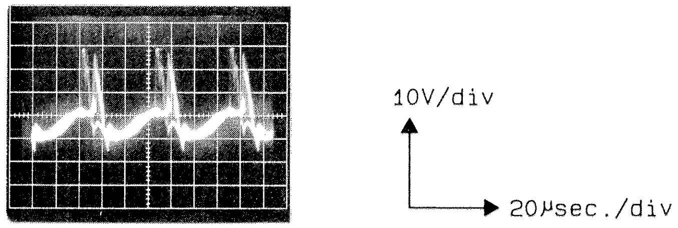
㉗ CG connector ② pin



㉘ CB connector ④ pin

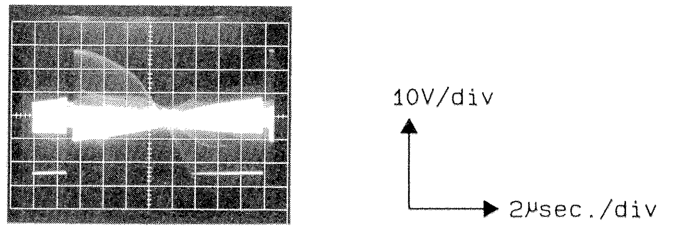


㉙ CB connector ④ pin

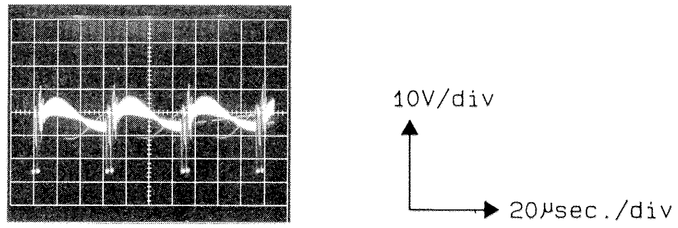


DEFLECTION P.W.B. (1/2)

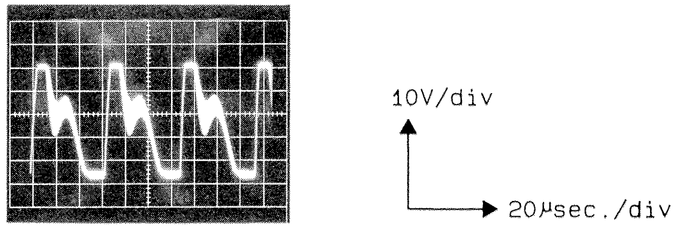
㉚ CB connector ② pin



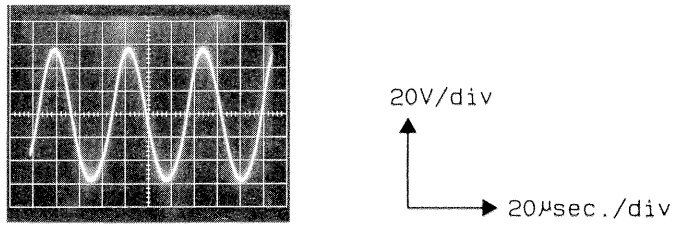
㉛ CB connector ② pin



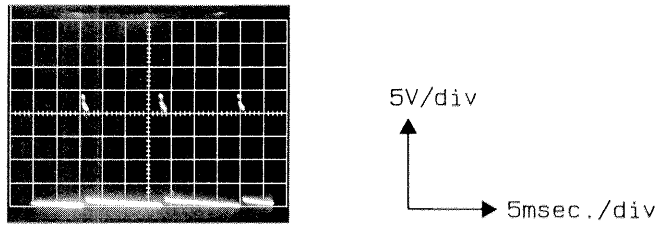
㉜ HG connector ⑤ pin



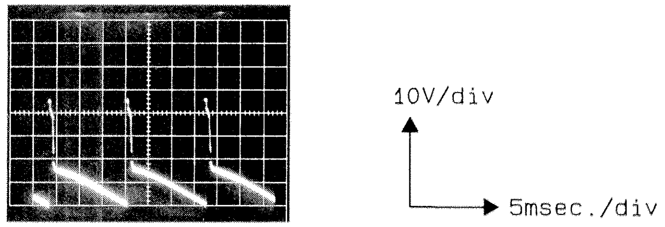
㉝ HR connector ② pin



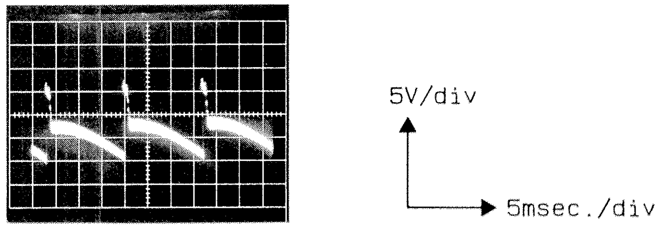
㉟ IC601 ⑨ pin



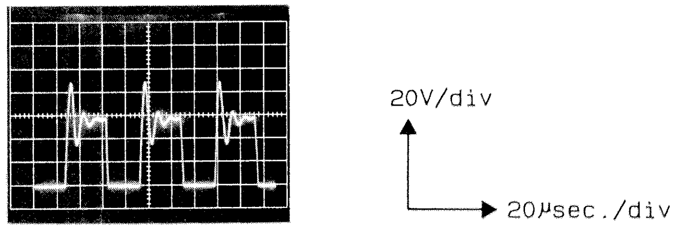
㊱ IC601 ⑫ pin



㊲ MR connector ① pin

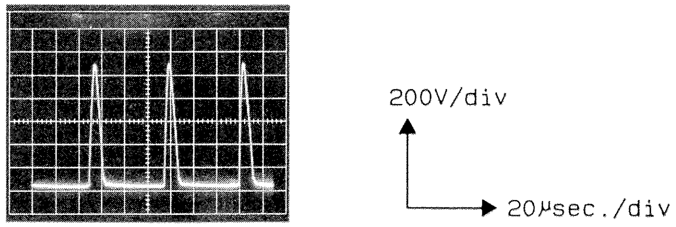


㊳ Q701 corrector

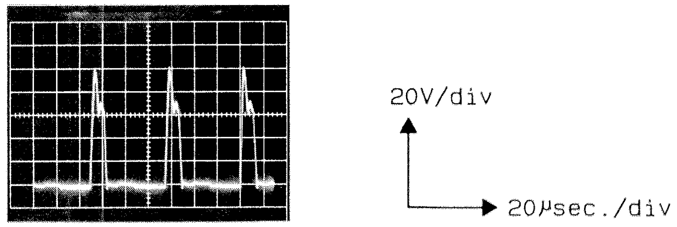


DEFLECTION P.W.B. (2/2)

㉞ Q777 corrector

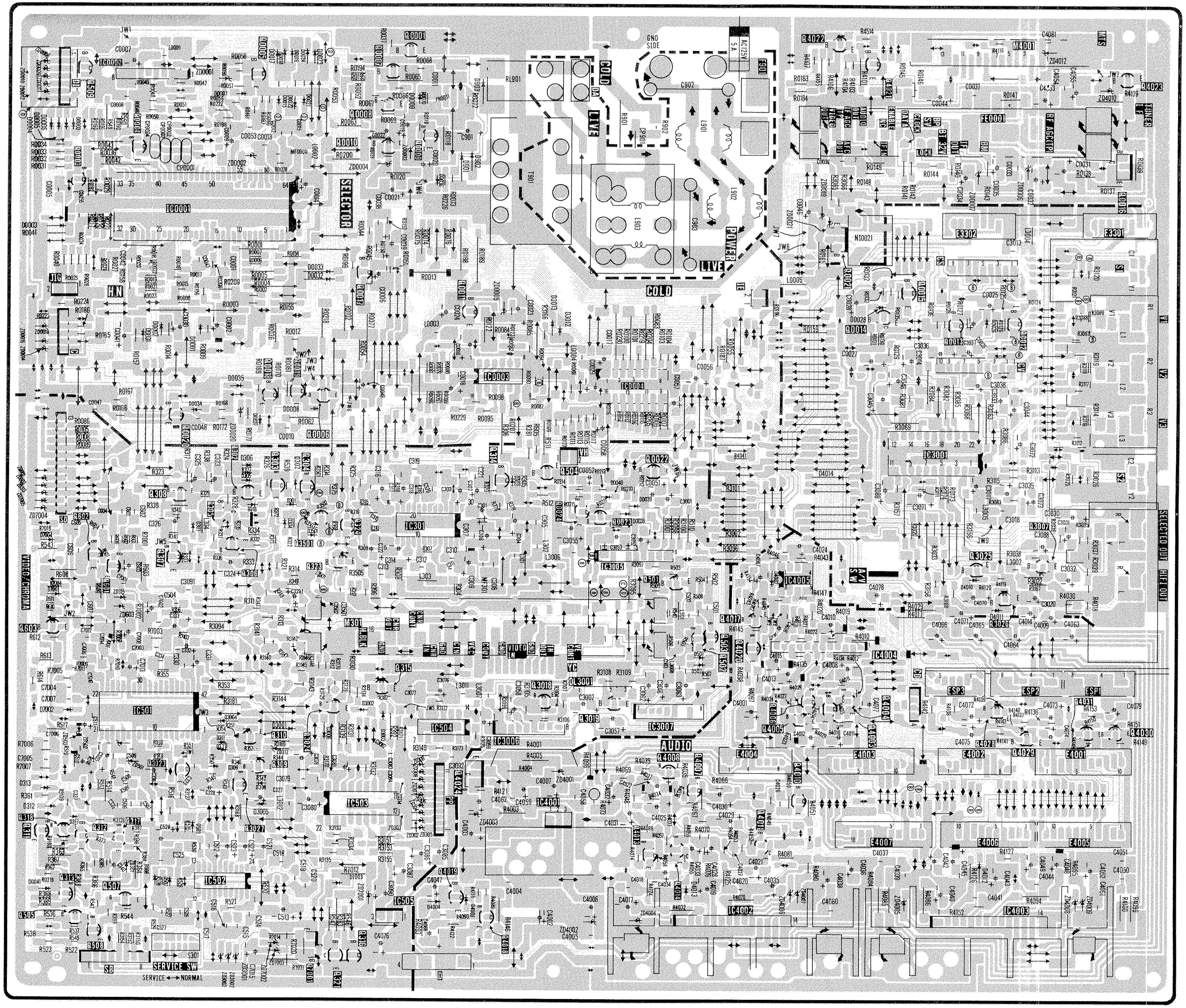


㊴ Q706 anode



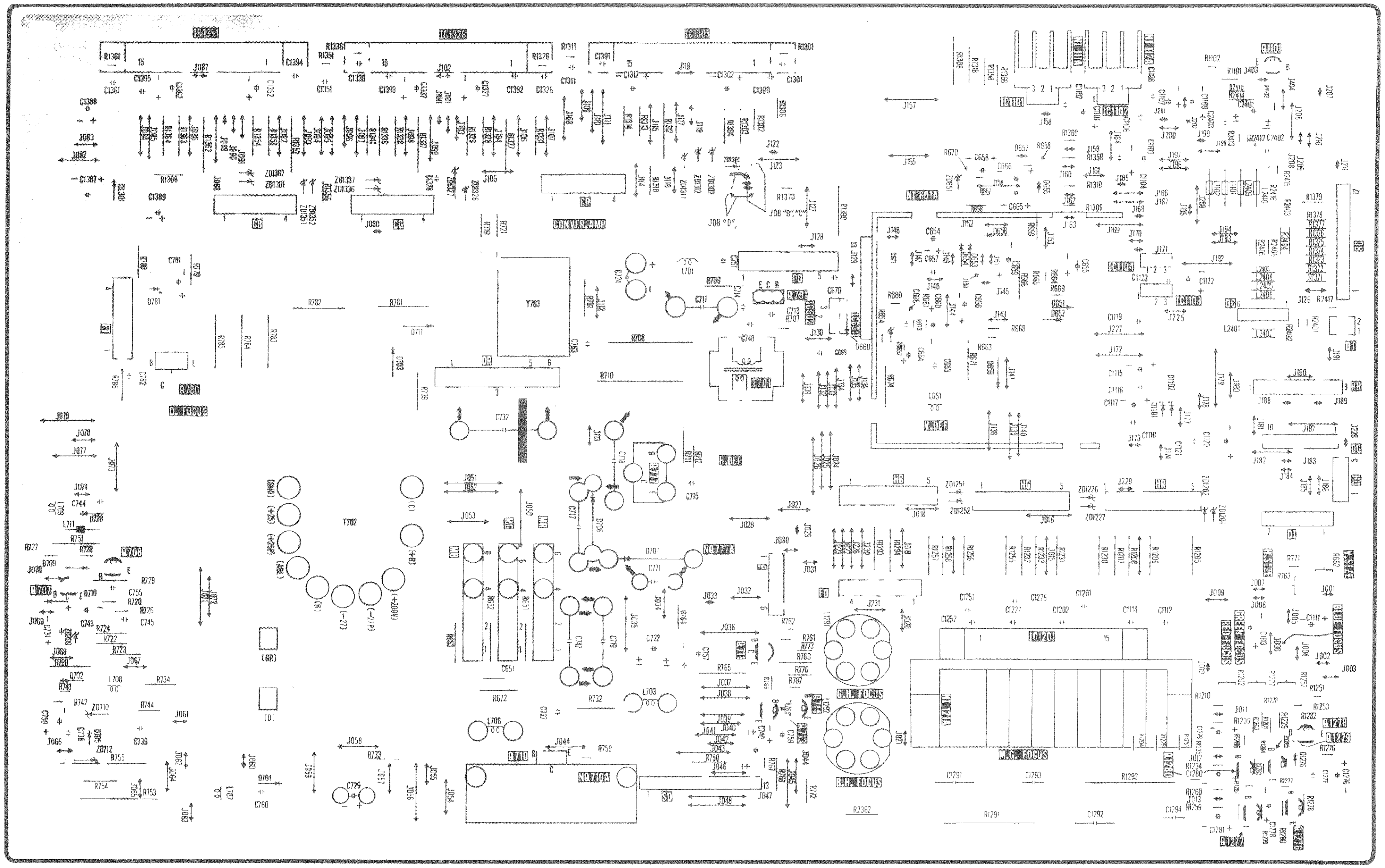
PRINTED WIRING BOARD

SIGNAL P.W.B.

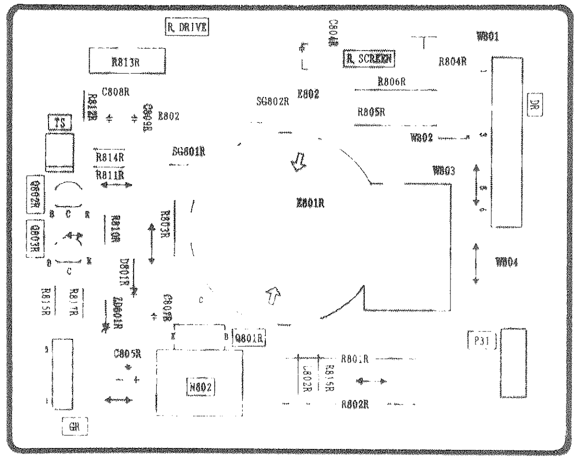

SELECTOR
IC0001
IC0003
IC0004
IC301
IC501
IC502
IC503
IC504
IC505
IC3001
IC3005
IC3006
IC3007
IC4001
IC4002
IC4003
IC4004
IC4005
M301
M4001
FE0001
RF AGC
TUNER
POWER
LIVE
COLD
GND SIDE
AC125V 5A
RL901
T901
L901
L902
L903
C902
C903
AUDIO
VIDEO/CHROMA
SELECTED OUT
HIFI OUT
SERVICE SW
S301
SERVICE ←→ NORMAL
ESP1
ESP2
ESP3
E3301
E3302
E4001
E4002
E4003
E4004
E4005
E4006
E4007
N10021
JW1
JW2
JW3
JW4
JW5
JW6
JW7

PRINTED WIRING BOARD

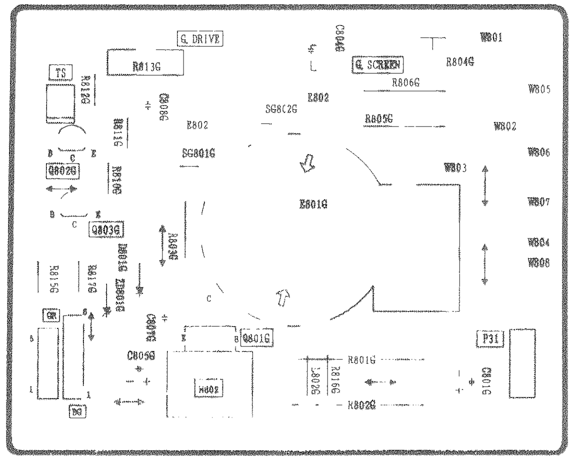
DEFLECTION P.W.B.


IC1331
IC1326
IC1301
IC1101
IC1102
IC1104
IC1103
IC1201
T703
T702
T701
CONVER.AMP
D.FOCUS
H.DEF
V.DEF
G.H.FOCUS
R.H.FOCUS
B.H.FOCUS
M.G.FOCUS
NQ710A
NQ777A
NQ601A
Q710
Q701
Q780
Q708
Q707
HB
HG
HR

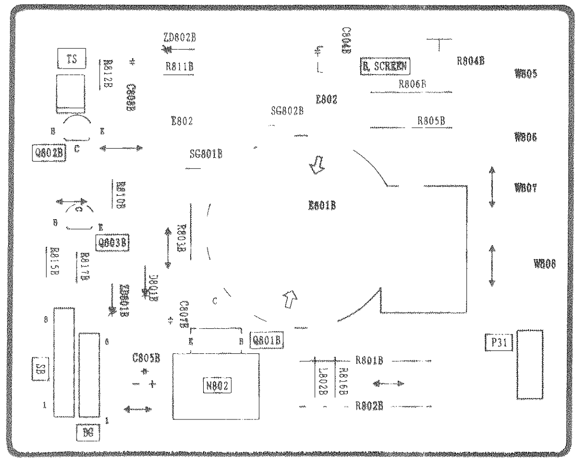
C.P.T. (R) P.W.B.


R.DRIVE
R.SCREEN
R813R
R806R
R805R
R804R
SG801R
SG802R
E802
E801R
Q801R
Q802R
Q803R
W801
W802
W803
W804
N802
P31

C.P.T. (G) P.W.B.

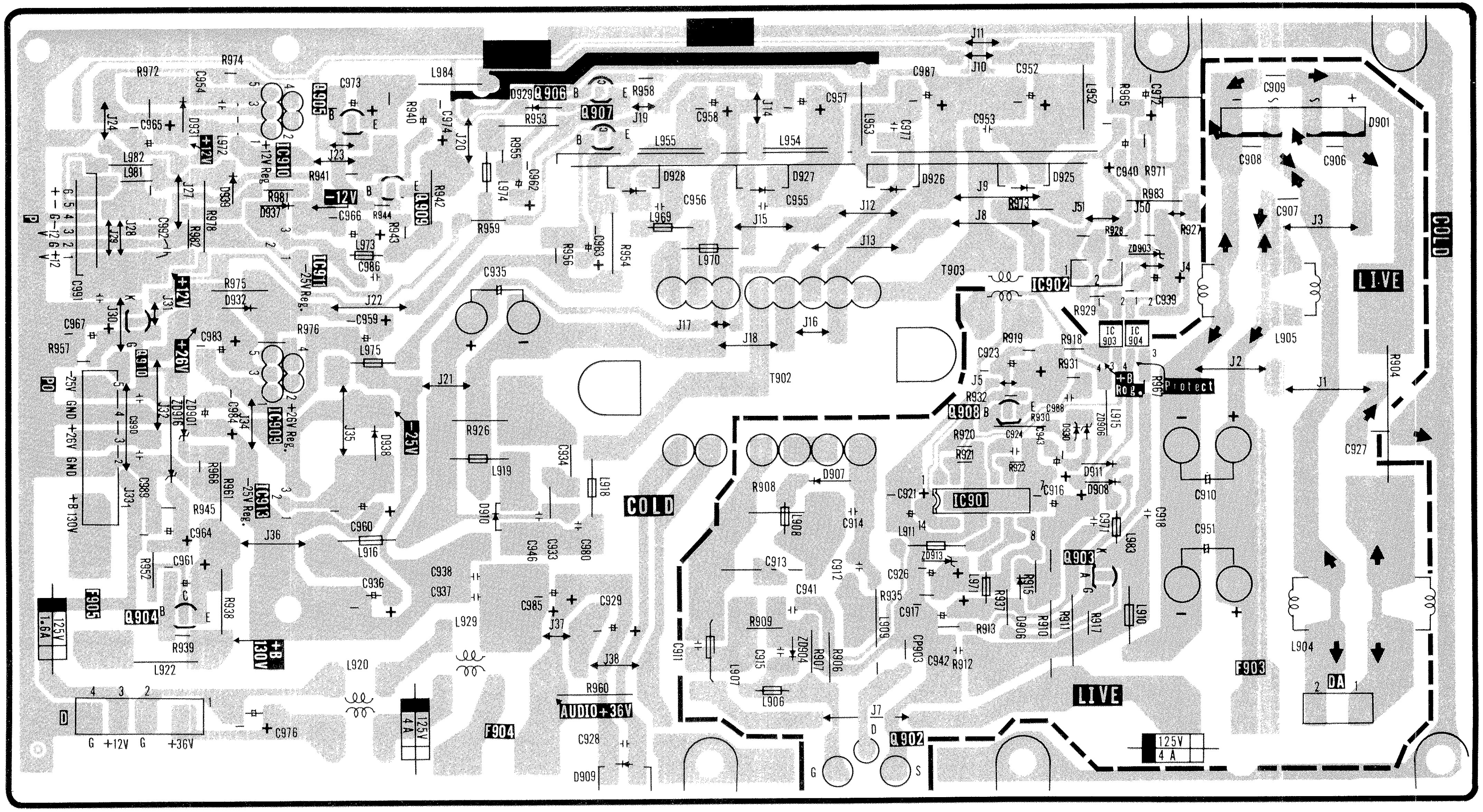

G.DRIVE
G.SCREEN
R813G
R806G
R805G
R804G
SG801G
SG802G
E802
E801G
Q801G
Q802G
Q803G
W801
W802
W803
W804
W805
W806
W807
W808
N802
P31

C.P.T. (B) P.W.B.

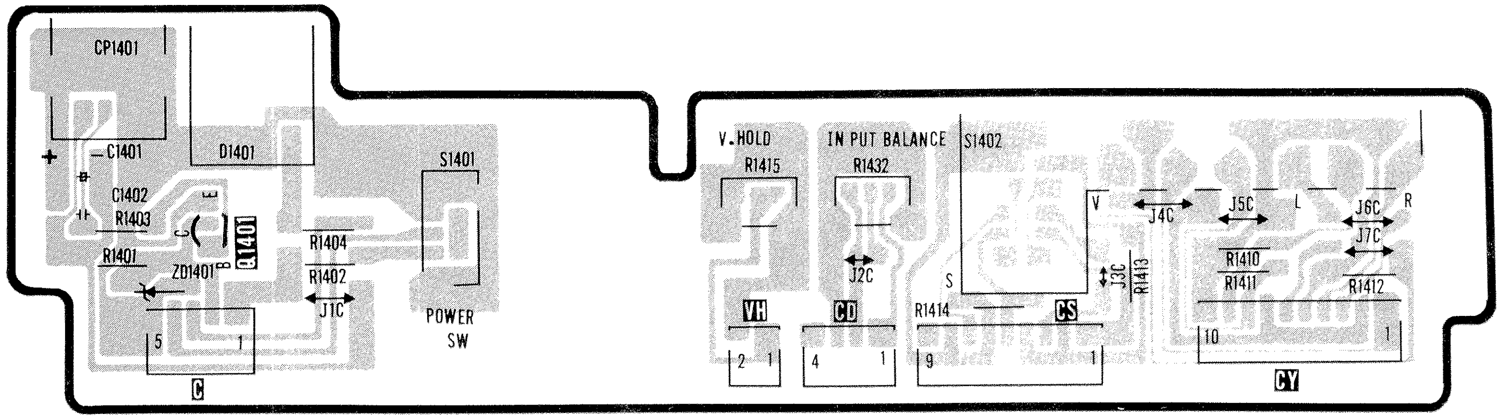

B.SCREEN
R811B
R806B
R805B
R804B
SG801B
SG802B
E802
E801B
Q801B
Q803B
W805
W806
W807
W808
N802
P31

PRINTED WIRING BOARD

POWER SUPPLY P.W.B.

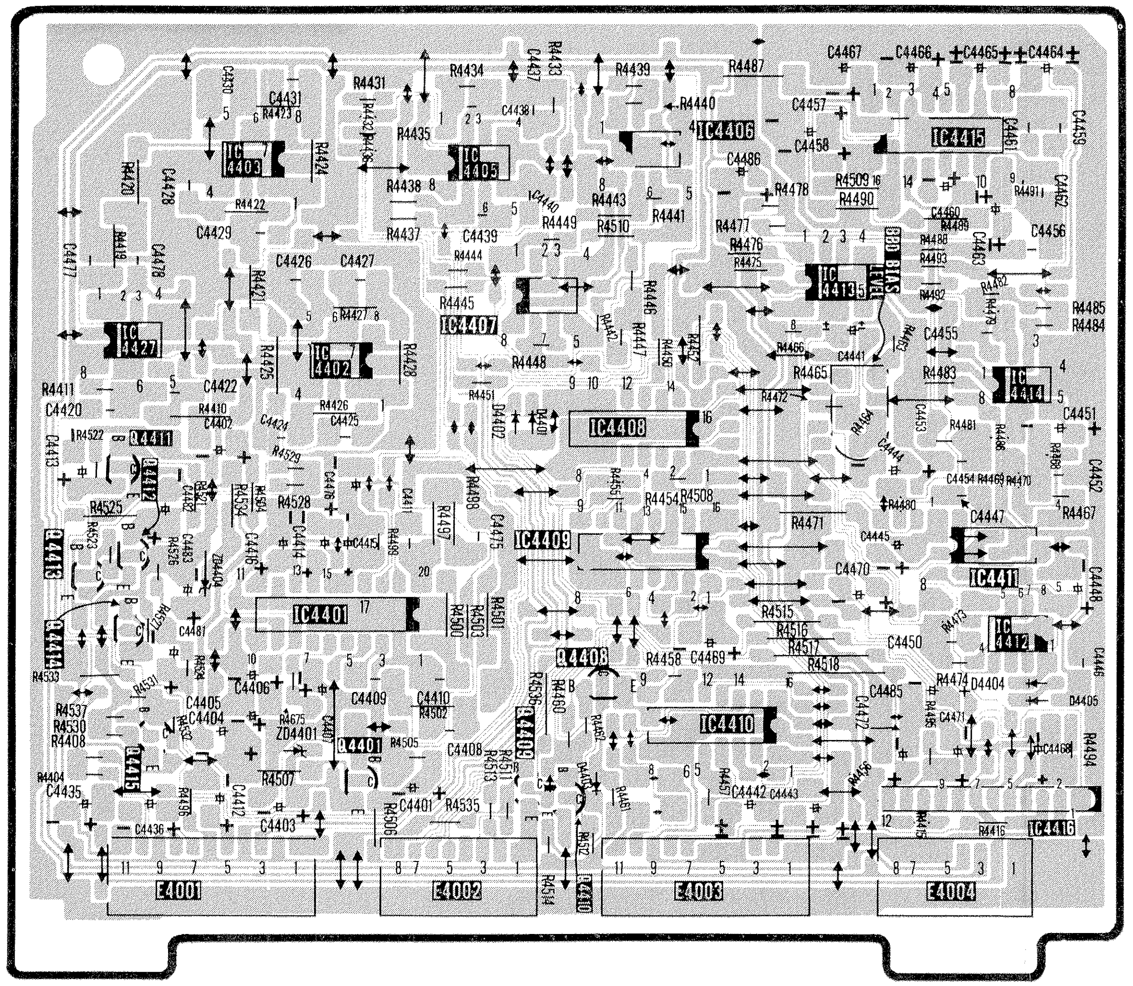

R974
R972
C954
C965
D931
L972
L982
L981
J24
J27
J28
J29
P
6 5 4 3 2 1
+ − G −12 G +12
V V
C991
IC910
+12V Reg.
+12V
D939
R978
R982
C992
Q905
C973
R940
L984
D929
Q906
Q907
R958
J19
R953
J23
R941
R981
D937
−12V
C966
R944
R943
Q909
R942
R955
L974
C962
R959
L973
C986
IC911
−25V Reg.
J20
C974
J22
C959
L975
R975
D932
+12V
J31
J30
C967
R957
Q910
C983
+26V
R976
J21
PQ
−25V GND +26V GND +B 130V
J32
J33
ZD901
ZD916
C990
C989
C984
J34
IC909
+26V Reg.
J35
D938
−25V
R926
L919
R968
R961
IC913
−25V Reg.
R945
C964
J36
C960
L916
R952
C961
F905
125V 1.6A
Q904
R938
R939
+B 130V
L922
C938
C937
C936
L929
C985
C929
J37
J38
L920
D
4 3 2 1
G +12V G +36V
C976
125V 4A
F904
R960
AUDIO +36V
C928
D909
C935
R956
C963
R954
C934
L918
D910
C946
C933
C980
COLD
L955
L954
D928
D927
D926
D925
C956
C955
L969
L970
J15
J12
J13
J17
J18
J16
T902
T903
C958
J14
C957
L953
C977
C953
L952
C987
J11
J10
C952
R965
C972
C940
R971
R983
J50
J51
R973
J9
J8
R928
R927
ZD903
J4
C939
IC902
R929
IC903
IC904
R919
R918
C923
R931
J5
R932
+B Reg.
R967
Protect
Q908
R930
C988
ZD906
L915
R920
C924
C943
D930
R921
R922
D911
D908
C916
D907
R908
C921
IC901
L908
C914
L911
ZD913
C971
L983
C918
Q903
C913
C912
C941
C926
R935
L971
R937
R915
R910
R911
R917
L910
C917
L909
R909
ZD904
R907
R906
C915
C911
L907
L906
CP903
C942
R912
R913
D906
J7
Q902
G D S
LIVE
F903
125V 4A
C909
D901
C908
C906
C907
J3
COLD
LIVE
L905
J2
J1
R904
C927
C910
C951
L904
DA
2 1

CONTROL P.W.B.

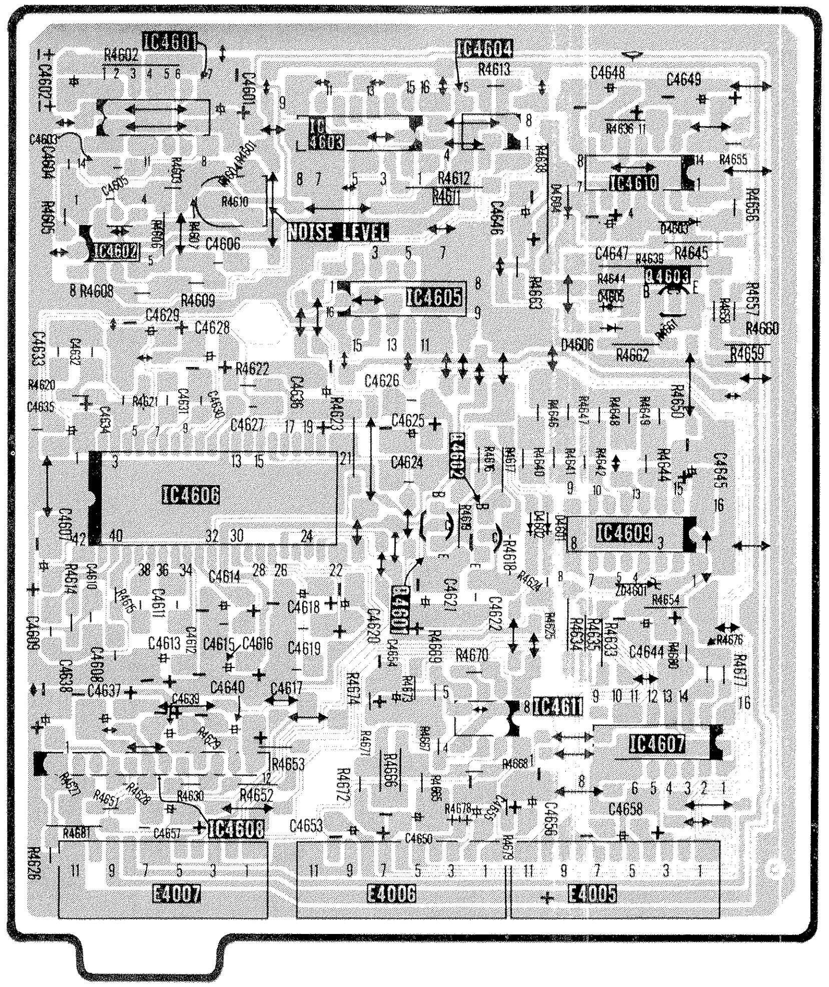

CP1401
C1401
C1402
R1403
D1401
Q1401
R1401
ZD1401
R1404
R1402
J1C
S1401
POWER SW
C
5 1
V.HOLD
R1415
VH
2 1
IN PUT BALANCE
R1432
J2C
CD
4 1
S1402
V
S
J3C
R1413
R1414
CS
9 1
J4C
J5C
L
J6C
R
J7C
R1410
R1411
R1412
10 1
CY

PRINTED WIRING BOARD

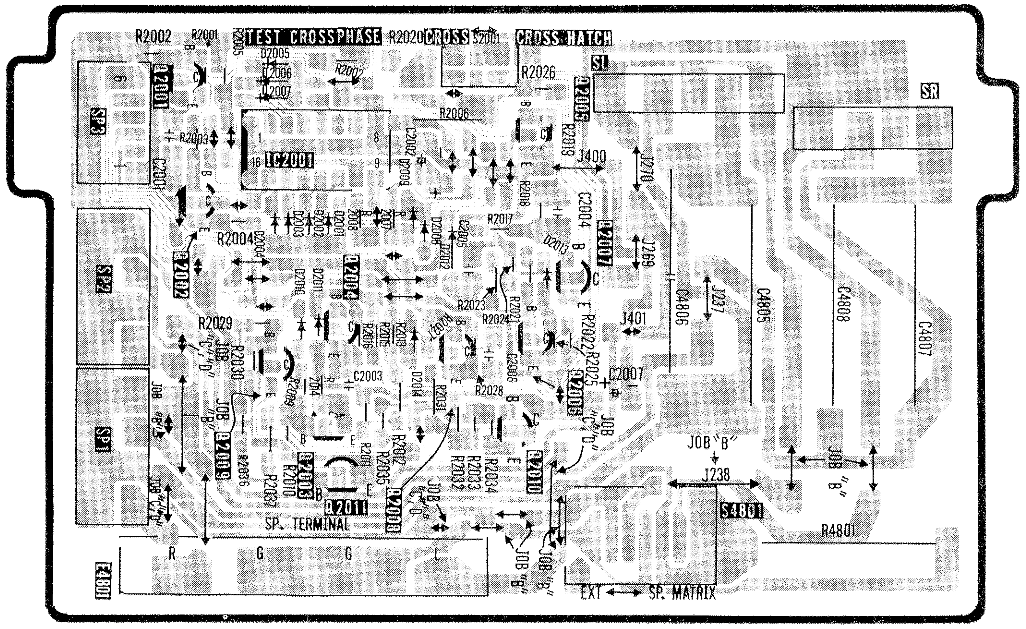
3-WAY P.W.B.


IC4401
IC4402
IC4403
IC4405
IC4406
IC4407
IC4408
IC4409
IC4410
IC4411
IC4412
IC4413
IC4414
IC4415
IC4416
IC4427
Q4401
Q4408
Q4409
Q4410
Q4411
Q4412
Q4413
Q4414
Q4415
BBD BIAS LEVEL
E4001
E4002
E4003
E4004

PRO-LOGIC P.W.B.


IC4601
IC4602
IC4603
IC4604
IC4605
IC4606
IC4607
IC4608
IC4609
IC4610
IC4611
Q4601
Q4602
Q4603
NOISE LEVEL
E4005
E4006
E4007

SP TERMINAL P.W.B.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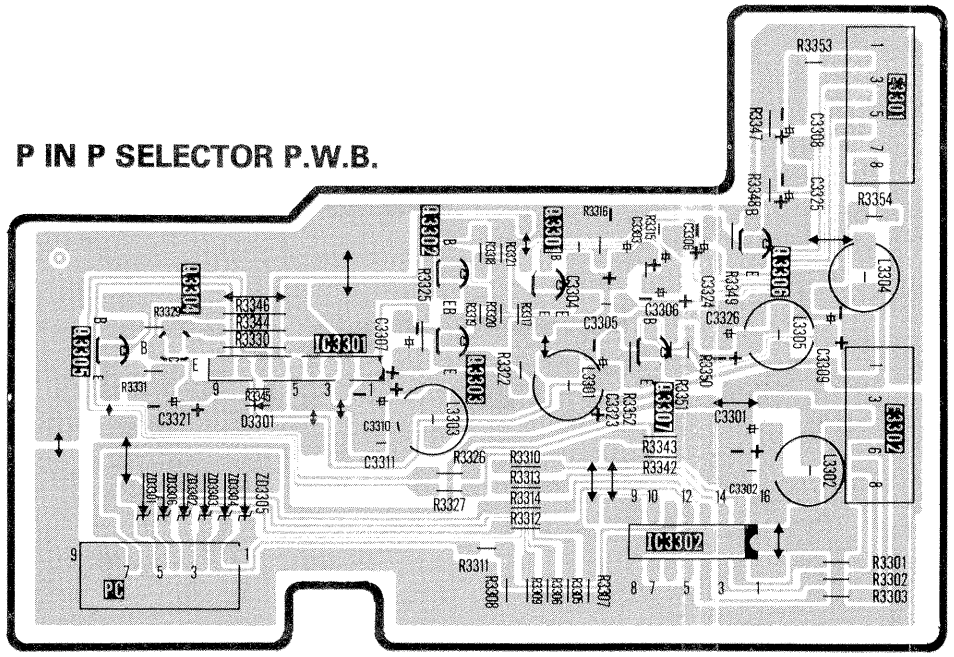
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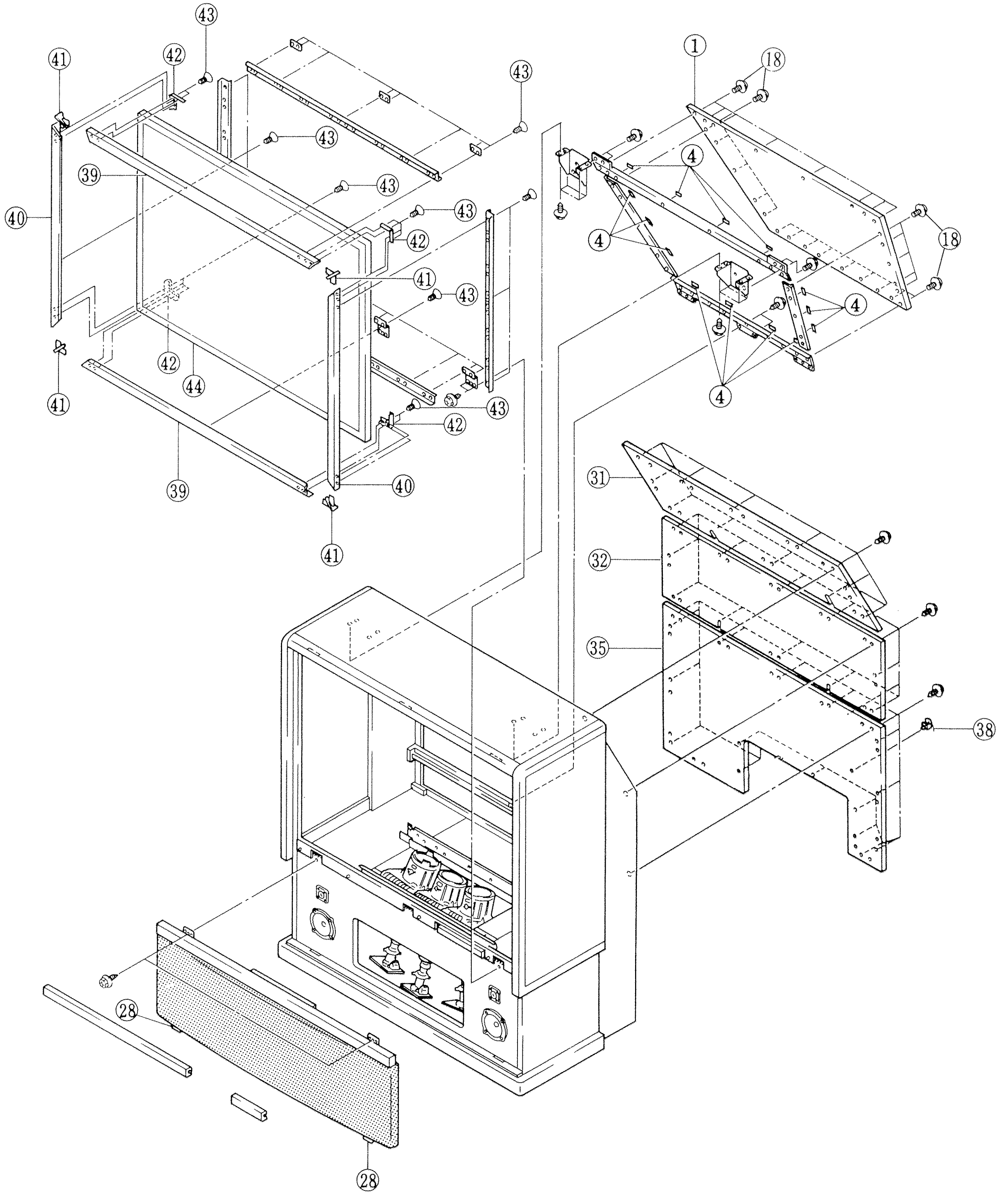
EXPLODED VIEW (1/3)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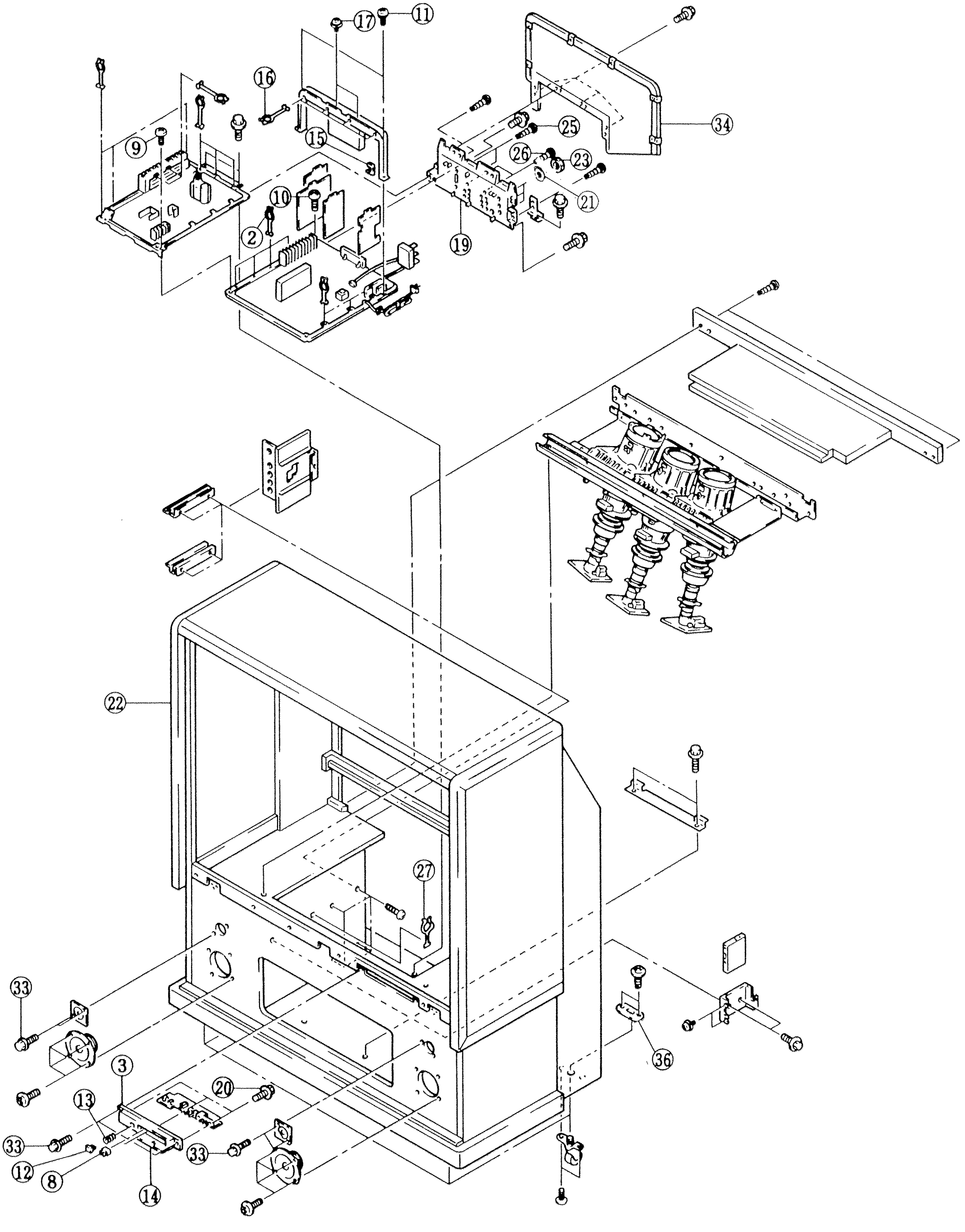
EXPLODED VIEW (2/3)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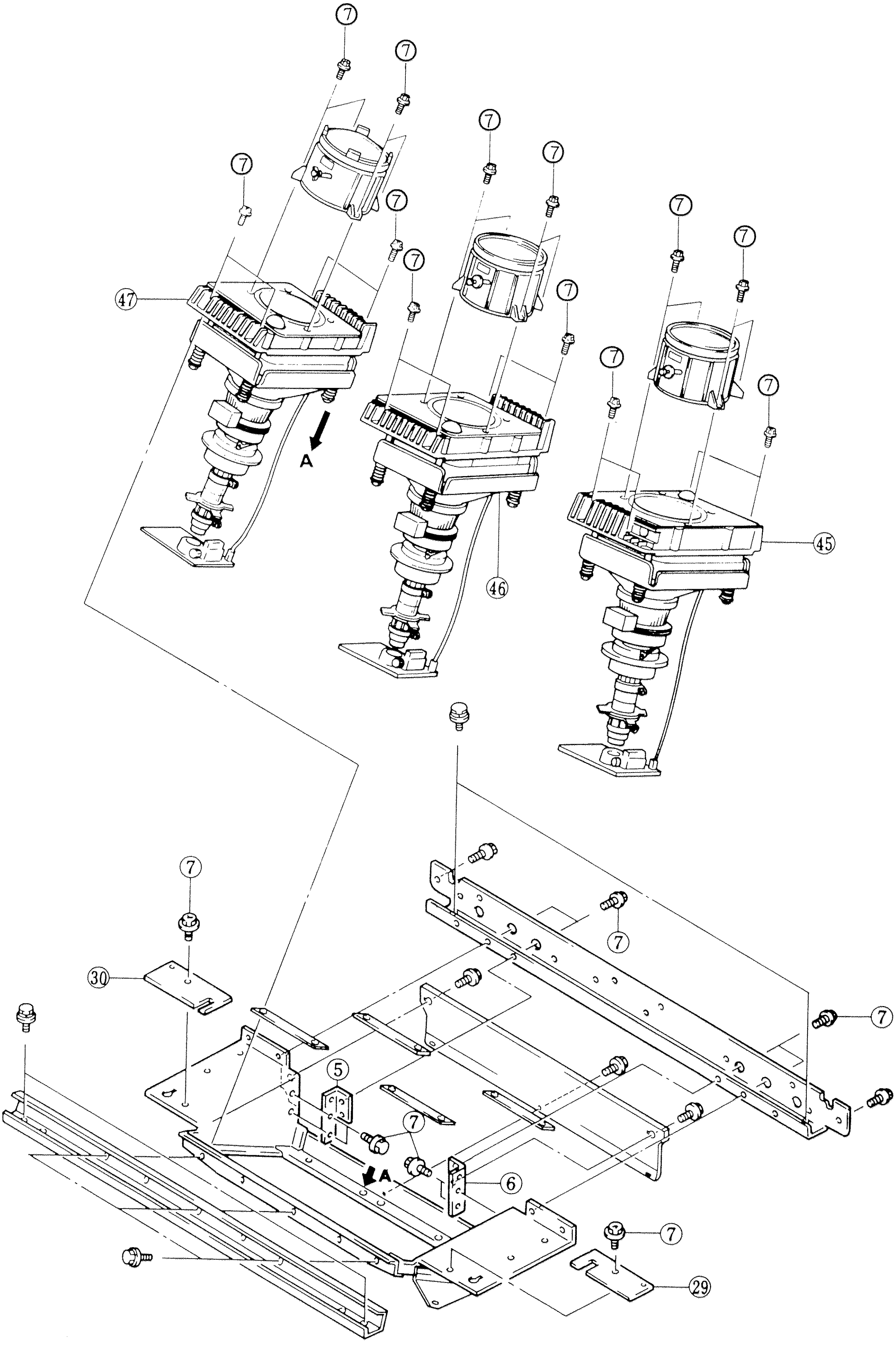
EXPLODED VIEW (3/3)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REPLACEMENT PARTS LIST

PRODUCT SAFETY NOTE: Components marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully, the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

ABBREVIATIONS		
	Capacitors	CD:Ceramic disk, PF:Polyester film, EL:Electrolytic, PP:Polypropylene, PR:Paper, TA:Tantalum, TM:Trimmer.
	Resistors	CF:Carbon film, CC:Carbon composition, MF:Metal oxide film, VR:Variable resistor, WW:Wire would, FR:Fuse resistor, MG:Metal glazed
	Semiconductor	TR:Transistor, DI:Diode, ZD:Zener diode, VA:Varistor, TH:Thermistor, IC:IC.

SYMBOL NO.	PART NO.	DESCRIPTION
		CAPACITORS
C0001	0247854	CD 100PF +-5% 500V
C0002	0800003	CAPACITOR ELECTROLYTIC 1MF 50V
C0005	0248690	CD 180PF +-5% 50V
C0006	0800003	CAPACITOR ELECTROLYTIC 1MF 50V
C0007	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C0008	0880057	PF 0.1MF +-10% 50V
C0009	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C0010	0244105	CD 2200PF +-10% 50V
C0011	0880048	PF 0.022MF +-10% 50V
C0012	0890067	CD 33PF +-5% 50V
C0013	0890067	CD 33PF +-5% 50V
C0014	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C0015	0880057	PF 0.1MF +-10% 50V
C0016	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C0017	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C0018	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C0019	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C0020	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C0021	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C0022	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C0023	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C0024	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C0025	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C0026	0800009	CAPACITOR ELECTROLYTIC 4.7MF 25V
C0027	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C0028	0800009	CAPACITOR ELECTROLYTIC 4.7MF 25V
C0029	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C0030	0800003	CAPACITOR ELECTROLYTIC 1MF 50V
C0031	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C0032	0800041	CAPACITOR ELECTROLYTIC 47MF 16V
C0033	0880057	PF 0.1MF +-10% 50V
C0034	0800018	CAPACITOR ELECTROLYTIC 10MF 50V
C0035	0800047	CAPACITOR ELECTROLYTIC 100MF 6.3V
C0036	0880053	PF 0.047MF +-10% 50V
C0037	0880044	PF 0.01MF +-10% 50V
C0038	0244501	CD 1000PF +-10% 500V
C0039	0284628R	EL 3.3MF 50V
C0041	0800003	CAPACITOR ELECTROLYTIC 1MF 50V
C0042	0247854	CD 100PF +-5% 500V
C0043	0247854	CD 100PF +-5% 500V
C0044	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C0046	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C0047	0890084	CD 560PF +-10% 50V
C0048	0880051	PF 0.033MF +-10% 50V
C0049	0800005	CAPACITOR,ELECTROLYTIC 2.2MF 50V
C0051	0284449R	EL 4.7MF 50V
C0052	0800003	CAPACITOR ELECTROLYTIC 1MF 50V
C0053	0880044	PF 0.01MF +-10% 50V
C0055	0880044	PF 0.01MF +-10% 50V
C0056	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C0057	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C0058	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C1101	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C1102	0244141	CD 0.01MF +-10% 50V
C1103	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C1104	0244141	CD 0.01MF +-10% 50V
C1106	0880057	PF 0.1MF +-10% 50V
C1107	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C1108	0880057	PF 0.1MF +-10% 50V
C1109	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C1111	0800053	CAPACITOR ELECTROLYTIC 100MF 50V
C1112	0244141	CD 0.01MF +-10% 50V
C1113	0800053	CAPACITOR ELECTROLYTIC 100MF 50V
C1114	0244141	CD 0.01MF +-10% 50V
C1119	0880057	PF 0.1MF +-10% 50V
C1120	0800087	CAPACITOR ELECTROLYTIC 2200MF 16V
C1121	0244141	CD 0.01MF +-10% 50V
C1122	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C1123	0244141	CD 0.01MF +-10% 50V
C1201	0890074	CD 100PF +-5% 50V
C1202	0890074	CD 100PF +-5% 50V
C1226	0890074	CD 100PF +-5% 50V
C1227	0890074	CD 100PF +-5% 50V
C1251	0890074	CD 100PF +-5% 50V
C1252	0890074	CD 100PF +-5% 50V
C1276	0800018	CAPACITOR ELECTROLYTIC 10MF 50V
C1277	0880062	PF 0.22MF +-10% 50V
C1278	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C1279	0800018	CAPACITOR ELECTROLYTIC 10MF 50V
C1280	0800018	CAPACITOR ELECTROLYTIC 10MF 50V
C1281	0800018	CAPACITOR ELECTROLYTIC 10MF 50V
C1291	0299993	PP 0.018MF 630V
C1292	0299996	PP 0.033MF.+-5% 630V
C1301	0248688	CD 150PF +-5% 50V
C1302	0800044	CAPACITOR ELECTROLYTIC 47MF 50V

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SYMBOL NO.	PART NO.	DESCRIPTION	SYMBOL NO.	PART NO.	DESCRIPTION
C1311	0248688	CD 150PF +-5% 50V	C3053	0284667	EL 47MF 16V
C1312	0800044	CAPACITOR ELECTROLYTIC 47MF 50V	C3055	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C1326	0248688	CD 150PF +-5% 50V	C3057	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C1327	0800044	CAPACITOR ELECTROLYTIC 47MF 50V	C3058	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C1336	0248688	CD 150PF +-5% 50V	C3059	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C1337	0800044	CAPACITOR ELECTROLYTIC 47MF 50V	C306	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C1351	0248688	CD 150PF +-5% 50V	C3062	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C1352	0800044	CAPACITOR ELECTROLYTIC 47MF 50V	C3063	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C1361	0248688	CD 150PF +-5% 50V	C307	0244171	CD 0.01MF +80-20% 50V
C1362	0800044	CAPACITOR ELECTROLYTIC 47MF 50V	C3071	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C1387	0800069	CAPACITOR,ELECTROLYTIC 330MF 50V	C3072	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C1388	0800053	CAPACITOR ELECTROLYTIC 100MF 50V	C3073	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C1389	0800069	CAPACITOR,ELECTROLYTIC 330MF 50V	C3076	0880049	CAPACITOR,ELECTROLYTIC 100MF 16V
C1390	0248688	CD 150PF +-5% 50V	C3077	0880044	PF 0.01MF +-10% 50V
C1391	0248688	CD 150PF +-5% 50V	C3078	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C1392	0248688	CD 150PF +-5% 50V	C3079	0880044	PF 0.01MF +-10% 50V
C1393	0248688	CD 150PF +-5% 50V	C308	0890115	CD 12PF +-5% 50V
C1394	0248688	CD 150PF +-5% 50V	C3080	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C1395	0248688	CD 150PF +-5% 50V	C3081	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C1401	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V	C3082	0880044	PF 0.01MF +-10% 50V
C1402	0890087	CD 1000PF +-10% 50V	C3083	0880044	PF 0.01MF +-10% 50V
C2001	0880044	PF 0.01MF +-10% 50V	C3084	0880044	PF 0.01MF +-10% 50V
C2002	0800041	CAPACITOR ELECTROLYTIC 47MF 16V	C3085	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C2003	0890083	CD 470PF +-10% 50V	C3086	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C2004	0890085	CD 680PF +-10% 50V	C3087	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C2005	0880031	PF 1000PF +-10% 50V	C3088	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C2006	0890121	CD 33PF +-5% 50V	C3089	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C2007	0800058	CAPACITOR ELECTROLYTIC 220MF 16V	C309	0800003	CAPACITOR ELECTROLYTIC 1MF 50V
C2401	0252417	EL 1MF 50V	C3090	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C2402	0890074	CD 100PF +-5% 50V	C3091	0880057	PF 0.1MF +-10% 50V
C3001	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C3092	0880057	PF 0.1MF +-10% 50V
C3002	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C310	0244171	CD 0.01MF +80-20% 50V
C301	0284638	EL 10MF 16V	C311	0244171	CD 0.01MF +80-20% 50V
C3013	0890062	CD 12PF +-5% 50V	C313	0244171	CD 0.01MF +80-20% 50V
C3014	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C314	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C3016	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V	C315	0244171	CD 0.01MF +80-20% 50V
C3017	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V	C316	0244171	CD 0.01MF +80-20% 50V
C3018	0880044	PF 0.01MF +-10% 50V	C317	0800003	CAPACITOR ELECTROLYTIC 1MF 50V
C302	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C318	0800003	CAPACITOR ELECTROLYTIC 1MF 50V
C3020	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V	C319	0890084	CD 560PF +-10% 50V
C303	0890067	CD 33PF +-5% 50V	C320	0890087	CD 1000PF +-10% 50V
C3030	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C321	0800023	CAPACITOR ELECTROLYTIC 22MF 16V
C3031	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C322	0800003	CAPACITOR ELECTROLYTIC 1MF 50V
C3032	0800074	CAPACITOR ELECTROLYTIC 470MF 16V	C323	0800003	CAPACITOR ELECTROLYTIC 1MF 50V
C3033	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C324	0800041	CAPACITOR ELECTROLYTIC 47MF 16V
C3035	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C325	0800009	CAPACITOR ELECTROLYTIC 4.7MF 25V
C3036	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C326	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C3037	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C327	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C3038	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C328	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C304	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V	C329	0244171	CD 0.01MF +80-20% 50V
C3044	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C330	0244171	CD 0.01MF +80-20% 50V
C3045	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C3301	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C3046	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C3302	0880044	PF 0.01MF +-10% 50V
C305	0244171	CD 0.01MF +80-20% 50V	C3303	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C3052	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C3304	0880044	PF 0.01MF +-10% 50V

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SYMBOL NO.	PART NO.	DESCRIPTION	SYMBOL NO.	PART NO.	DESCRIPTION
C3305	0880057	PF 0.1MF +-10% 50V	C4035	0800051	CAPACITOR ELECTROLYTIC 100MF 25V
C3306	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C4036	0800023	CAPACITOR ELECTROLYTIC 22MF 16V
C3307	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C4037	0880057	PF 0.1MF +-10% 50V
C3308	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C4038	0800077	CAPACITOR,ELECTROLYTIC 470MF 50V
C3309	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C4039	0880057	PF 0.1MF +-10% 50V
C331	0800103	CAPACITOR ELECTROLYTIC 0.22MF 50V	C4040	0800051	CAPACITOR ELECTROLYTIC 100MF 25V
C3310	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V	C4041	0880031	PF 1000PF +-10% 50V
C3311	0880044	PF 0.01MF +-10% 50V	C4042	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C332	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C4043	0800067	CAPACITOR,ELECTROLYTIC 330MF 25V
C3321	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C4044	0880031	PF 1000PF +-10% 50V
C3322	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V	C4045	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C3323	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C4047	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C3324	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C4048	0800051	CAPACITOR ELECTROLYTIC 100MF 25V
C3325	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V	C4049	0800023	CAPACITOR ELECTROLYTIC 22MF 16V
C3326	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V	C4050	0880057	PF 0.1MF +-10% 50V
C333	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C4051	0880057	PF 0.1MF +-10% 50V
C334	0244171	CD 0.01MF +80-20% 50V	C4052	0800077	CAPACITOR,ELECTROLYTIC 470MF 50V
C335	0880057	PF 0.1MF +-10% 50V	C4053	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C336	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V	C4054	0880044	PF 0.01MF +-10% 50V
C337	0890083	CD 470PF +-10% 50V	C4055	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C339	0284667	EL 47MF 16V	C4058	0880057	PF 0.1MF +-10% 50V
C340	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C4059	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C4001	0252953	EL 4700MF 16V	C4060	0880057	PF 0.1MF +-10% 50V
C4002	0259411F	EL 3300MF 50V	C4061	0880057	PF 0.1MF +-10% 50V
C4003	0800053	CAPACITOR ELECTROLYTIC 100MF 50V	C4062	0800016	EL 10MF 25V
C4004	0880057	PF 0.1MF +-10% 50V	C4063	0800083	CAPACITOR ELECTROLYTIC 1000MF 25V
C4005	0880057	PF 0.1MF +-10% 50V	C4064	0800083	CAPACITOR ELECTROLYTIC 1000MF 25V
C4006	0800051	CAPACITOR ELECTROLYTIC 100MF 25V	C4065	0800083	CAPACITOR ELECTROLYTIC 1000MF 25V
C4007	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V	C4066	0800083	CAPACITOR ELECTROLYTIC 1000MF 25V
C4008	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C4067	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C4009	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C4068	0800007	CAPACITOR,ELECTROLYTIC 3.3MF 50V
C4010	0800103	CAPACITOR ELECTROLYTIC 0.22MF 50V	C4070	0800026	CAPACITOR ELECTROLYTIC 22MF 50V
C4011	0800016	CAPACITOR ELECTROLYTIC 10MF 25V	C4071	0800026	CAPACITOR ELECTROLYTIC 22MF 50V
C4012	0800016	CAPACITOR ELECTROLYTIC 10MF 25V	C4072	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C4013	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C4073	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C4014	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C4074	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C4015	0800103	CAPACITOR ELECTROLYTIC 0.22MF 50V	C4075	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C4016	0800041	CAPACITOR ELECTROLYTIC 47MF 16V	C4076	0800082	CAPACITOR ELECTROLYTIC 1000MF 16V
C4017	0800051	CAPACITOR ELECTROLYTIC 100MF 25V	C4077	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C4018	0880031	PF 1000PF +-10% 50V	C4078	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C4019	0800067	CAPACITOR,ELECTROLYTIC 330MF 25V	C4079	0800041	CAPACITOR ELECTROLYTIC 47MF 16V
C4020	0880031	PF 1000PF +-10% 50V	C4081	0880057	PF 0.1MF +-10% 50V
C4021	0800009	CAPACITOR ELECTROLYTIC 4.7MF 25V	C4401	0800003	CAPACITOR ELECTROLYTIC 1MF 50V
C4022	0800009	CAPACITOR ELECTROLYTIC 4.7MF 25V	C4402	0800016	CAPACITOR ELECTROLYTIC 10MF 25V
C4024	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C4403	0800016	CAPACITOR ELECTROLYTIC 10MF 25V
C4025	0284446R	EL 1MF 50V	C4404	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C4026	0880053	PF 0.047MF +-10% 50V	C4405	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C4027	0880053	PF 0.047MF +-10% 50V	C4406	0800001	CAPACITOR ELECTROLYTIC 0.47MF 50V
C4028	0284446R	EL 1MF 50V	C4407	0800009	CAPACITOR ELECTROLYTIC 4.7MF 25V
C4029	0800005	CAPACITOR,ELECTROLYTIC 2.2MF 50V	C4408	0880057	PF 0.1MF +-10% 50V
C4030	0800005	CAPACITOR,ELECTROLYTIC 2.2MF 50V	C4409	0880055	PF 0.068MF +-10% 50V
C4031	0800041	CAPACITOR ELECTROLYTIC 47MF 16V	C4410	0880037	PF 3300PF +-10% 50V
C4032	0800082	CAPACITOR ELECTROLYTIC 1000MF 16V	C4411	0890061	CD 10PF +-0.5% 50V
C4033	0800009	CAPACITOR ELECTROLYTIC 4.7MF 25V	C4412	0800016	CAPACITOR ELECTROLYTIC 10MF 25V
C4034	0800009	CAPACITOR ELECTROLYTIC 4.7MF 25V	C4413	0800009	CAPACITOR ELECTROLYTIC 4.7MF 25V

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SYMBOL NO.	PART NO.	DESCRIPTION	SYMBOL NO.	PART NO.	DESCRIPTION
C4414	0800016	CAPACITOR ELECTROLYTIC 10MF 25V	C4482	0800016	CAPACITOR ELECTROLYTIC 10MF 25V
C4415	0800003	CAPACITOR ELECTROLYTIC 1MF 50V	C4483	0800041	CAPACITOR ELECTROLYTIC 47MF 16V
C4416	0800041	CAPACITOR ELECTROLYTIC 47MF 16V	C4485	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C4420	0880048	PF 0.022MF +-10% 50V	C4486	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C4422	0880048	PF 0.022MF +-10% 50V	C4601	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C4424	0880035	PF 2200PF +-10% 50V	C4602	0284623R	EL 1MF 50V
C4425	0880048	PF 0.022MF +-10% 50V	C4603	0880044	PF 0.01MF +-10% 50V
C4426	0244104	CD 1800PF +-10% 50V	C4604	0244139	CD 1000PF +-10% 50V
C4427	0880048	PF 0.022MF +-10% 50V	C4605	0880044	PF 0.01MF +-10% 50V
C4428	0244104	CD 1800PF +-10% 50V	C4606	0880044	PF 0.01MF +-10% 50V
C4429	0880051	PF 0.033MF +-10% 50V	C4607	0800016	EL 10MF 25V
C4430	0880034	PF 1800PF +-10% 50V	C4608	0890085	CD 680PF +-10% 50V
C4431	0880051	PF 0.033MF +-10% 50V	C4609	0880057	PF 0.1MF +-10% 50V
C4435	0800016	CAPACITOR ELECTROLYTIC 10MF 25V	C4610	0880057	PF 0.1MF +-10% 50V
C4436	0800016	CAPACITOR ELECTROLYTIC 10MF 25V	C4611	0880019	PF 0.33MF +-10% 50V
C4437	0890074	CD 100PF +-5% 50V	C4612	0880019	PF 0.33MF +-10% 50V
C4438	0890074	CD 100PF +-5% 50V	C4613	0800012	CAPACITOR ELECTROLYTIC 4.7MF 50V
C4439	0248688	CD 150PF +-5% 50V	C4614	0800012	CAPACITOR ELECTROLYTIC 4.7MF 50V
C4440	0880035	PF 2200PF +-10% 50V	C4615	0244111	CD 6800PF +-10% 50V
C4441	0284623R	EL 1MF 50V	C4616	0800016	CAPACITOR ELECTROLYTIC 10MF 25V
C4442	0284623R	EL 1MF 50V	C4617	0880062	PF 0.22MF +-10% 50V
C4443	0284623R	EL 1MF 50V	C4618	0800009	CAPACITOR ELECTROLYTIC 4.7MF 25V
C4444	0800003	CAPACITOR ELECTROLYTIC 1MF 50V	C4619	0880062	PF 0.22MF +-10% 50V
C4445	0800042	CAPACITOR ELECTROLYTIC 47MF 25V	C4620	0800041	CAPACITOR ELECTROLYTIC 47MF 16V
C4446	0880044	PF 0.01MF +-10% 50V	C4621	0800016	CAPACITOR ELECTROLYTIC 10MF 25V
C4447	0880044	PF 0.01MF +-10% 50V	C4622	0276673	PF 0.47MF +-10% 50V
C4448	0800009	CAPACITOR ELECTROLYTIC 4.7MF 25V	C4624	0880062	PF 0.22MF +-10% 50V
C4450	0890074	CD 100PF +-5% 50V	C4625	0800012	CAPACITOR ELECTROLYTIC 4.7MF 50V
C4451	0800003	CAPACITOR ELECTROLYTIC 1MF 50V	C4626	0880062	PF 0.22MF +-10% 50V
C4452	0890087	CD 1000PF +-10% 50V	C4627	0244111	CD 6800PF +-10% 50V
C4453	0244109	CD 4700PF +-10% 50V	C4628	0800012	CAPACITOR ELECTROLYTIC 4.7MF 50V
C4454	0880041	PF 5600PF +-10% 50V	C4629	0800012	CAPACITOR ELECTROLYTIC 4.7MF 50V
C4455	0249093	CD 470PF +-5% 50V	C4630	0880057	PF 0.1MF +-10% 50V
C4456	0880041	PF 5600PF +-10% 50V	C4631	0880057	PF 0.1MF +-10% 50V
C4457	0800105	CAPACITOR ELECTROLYTIC 0.33MF 50V	C4632	0880057	PF 0.1MF +-10% 50V
C4458	0800101	CAPACITOR ELECTROLYTIC 0.1MF 50V	C4633	0880057	PF 0.1MF +-10% 50V
C4459	0880049	PF 0.027MF +-10% 50V	C4634	0244117	CD 680PF +-10% 50V
C4460	0800016	CAPACITOR ELECTROLYTIC 10MF 25V	C4635	0800016	CAPACITOR ELECTROLYTIC 10MF 25V
C4461	0880053	PF 0.047MF +-10% 50V	C4636	0800041	CAPACITOR ELECTROLYTIC 47MF 16V
C4462	0880039	PF 4700PF +-10% 50V	C4637	0800016	CAPACITOR ELECTROLYTIC 10MF 25V
C4463	0284623R	EL 1MF 50V	C4638	0800103	CAPACITOR ELECTROLYTIC 0.22MF 50V
C4464	0284623R	EL 1MF 50V	C4639	0800103	CAPACITOR ELECTROLYTIC 0.22MF 50V
C4465	0252410	EL 10MF 35V	C4640	0800041	CAPACITOR ELECTROLYTIC 47MF 16V
C4466	0800059	CAPACITOR ELECTROLYTIC 220MF 25V	C4644	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C4467	0800051	CAPACITOR ELECTROLYTIC 100MF 25V	C4645	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C4468	0800103	CAPACITOR ELECTROLYTIC 0.22MF 50V	C4646	0800016	CAPACITOR ELECTROLYTIC 10MF 25V
C4469	0800016	CAPACITOR ELECTROLYTIC 10MF 25V	C4647	0800016	CAPACITOR ELECTROLYTIC 10MF 25V
C4470	0800016	CAPACITOR ELECTROLYTIC 10MF 25V	C4648	0800003	CAPACITOR ELECTROLYTIC 1MF 50V
C4471	0800103	CAPACITOR ELECTROLYTIC 0.22MF 50V	C4649	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C4472	0800041	CAPACITOR ELECTROLYTIC 47MF 16V	C4650	0800016	CAPACITOR ELECTROLYTIC 10MF 25V
C4475	0880051	PF 0.033MF +-10% 50V	C4653	0800016	CAPACITOR ELECTROLYTIC 10MF 25V
C4476	0800009	CAPACITOR ELECTROLYTIC 4.7MF 25V	C4654	0800041	CAPACITOR ELECTROLYTIC 47MF 16V
C4477	0880033	PF 1500PF +-10% 50V	C4655	0800003	CAPACITOR ELECTROLYTIC 1MF 50V
C4478	0880051	PF 0.033MF +-10% 50V	C4656	0800003	CAPACITOR ELECTROLYTIC 1MF 50V
C4481	0800016	CAPACITOR ELECTROLYTIC 10MF 25V	C4657	0800003	CAPACITOR ELECTROLYTIC 1MF 50V

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SYMBOL NO.	PART NO.	DESCRIPTION	SYMBOL NO.	PART NO.	DESCRIPTION
C4658	0800016	CAPACITOR ELECTROLYTIC 10MF 25V	C7002	0800003	CAPACITOR ELECTROLYTIC 1MF 50V
C4805	0257048	EL 2.2MF 25V	C7003	0244104	CD 1800PF +-10% 50V
C4806	0257048	EL 2.2MF 25V	C7004	0880048	PF 0.022MF +-10% 50V
C4807	0257048	EL 2.2MF 25V	C7005	0890079	CD 270PF +-10% 50V
C4808	0257048	EL 2.2MF 25V	C7006	0890087	CD 1000PF +-10% 50V
C501	0880044	PF 0.01MF +-10% 50V	C7007	0880053	PF 0.047MF +-10% 50V
C502	0890063	CD 15PF +-5% 50V	C7008	0800003	CAPACITOR ELECTROLYTIC 1MF 50V
C503	0880044	PF 0.01MF +-10% 50V	C7009	0880033	PF 1500PF +-10% 50V
C504	0880044	PF 0.01MF +-10% 50V	C7010	0244107	CD 3300PF +-10% 50V
C505	0800005	CAPACITOR,ELECTROLYTIC 2.2MF 50V	C7012	0880048	PF 0.022MF +-10% 50V
C506	0244171	CD 0.01MF +80-20% 50V	C7013	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C507	0244171	CD 0.01MF +80-20% 50V	C7014	0880053	PF 0.047MF +-10% 50V
C508	0246443	CD 13PF +-5% 50V	C7015	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C509	0244171	CD 0.01MF +80-20% 50V	C711	0299926	PP 0.1MF +-10% 200V
C510	0800001	CAPACITOR ELECTROLYTIC 0.47MF 50V	C713	0244501	CD 1000PF +-10% 500V
C511	0800003	CAPACITOR ELECTROLYTIC 1MF 50V	C714	0243507	CD 330PF +-10% 500V
C512	0880044	PF 0.01MF +-10% 50V	C715	0890028	CD 330PF +-10% 50V
C513	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V	⚠C717	0299723	PP 9100PF +-5% 1.6W
C515	0890076	CD 150PF +-10% 50V	⚠C718	0299668	PP 3600PF +-5% 1600V
C516	0890076	CD 150PF +-10% 50V	⚠C719	0299929	PP 0.18MF +-10% 200V
C517	0890076	CD 150PF +-10% 50V	⚠C721	0299918	PP 0.022MF +-10% 200V
C518	0890067	CD 33PF +-5% 50V	C722	0259471	EL 6.8MF 25V
C519	0890067	CD 33PF +-5% 50V	C723	0244202	CD 470PF +-10% 2KV
C520	0890067	CD 33PF +-5% 50V	C724	0259153	EL 220MF 160V
C521	0800003	EL 1MF 50V	C727	0244504	CD 1800PF +-10% 500V
C522	0800003	CAPACITOR ELECTROLYTIC 1MF 50V	C729	0253483	EL 33MF 350V
C523	0800003	CAPACITOR ELECTROLYTIC 1MF 50V	C731	0800053	CAPACITOR ELECTROLYTIC 100MF 50V
C524	0244171	CD 0.01MF +80-20% 50V	⚠C732	0299636	PP 0.068MF +-5% 1600V
C525	0244171	CD 0.01MF +80-20% 50V	C738	0243510	CD 560PF +-10% 500V
C526	0244171	CD 0.01MF +80-20% 50V	C739	0890087	CD 1000PF +-10% 50V
C527	0244171	CD 0.01MF +80-20% 50V	C740	0284623R	EL 1MF 50V
C528	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C743	0800003	CAPACITOR ELECTROLYTIC 1MF 50V
C601	0880044	PF 0.01MF +-10% 50V	C744	0880048	PF 0.022MF +-10% 50V
C602	0880053	PF 0.047MF +-10% 50V	C745	0880057	PF 0.1MF +-10% 50V
C603	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	⚠C747	0299930	PP 0.22MF +-10% 200V
C604	0880035	PF 2200PF +-10% 50V	C748	0247850	CD 68PF +-5% 500V
C605	0880037	PF 3300PF +-10% 50V	C750	0800018	CAPACITOR ELECTROLYTIC 10MF 50V
C606	0880057	PF 0.1MF +-10% 50V	C751	0244507	CD 3300PF +-10% 500V
C607	0880037	PF 3300PF +-10% 50V	C755	0244109	CD 4700PF +-10% 50V
C651	0279859	PF 0.1MF +-10% 100V	C757	0284449R	EL 4.7MF 50V
C652	0880051	PF 0.033MF +-10% 50V	C759	0800007	CAPACITOR,ELECTROLYTIC 3.3MF 50V
C653	0880044	PF 0.01MF +-10% 50V	C760	0243503	CD 150PF +-10% 500V
⚠C654	0800069	CAPACITOR,ELECTROLYTIC 330MF 50V	C763	0890089	CD 1500PF +-10% 50V
C655	0252969	EL 2200MF 25V	C801G	0257543	EL 3.3MF 315V
C656	0800069	CAPACITOR,ELECTROLYTIC 330MF 50V	C804B	0243425	CD 100PF +-10% 1.6KV
C658	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V	C804G	0243425	CD 100PF +-10% 1.6KV
C659	0284446R	EL 1MF 25V	C804R	0243425	CD 100PF +-10% 1.6KV
⚠C660	0292716	TA 1MF +-10% 20V	C805B	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C664	0800074	CAPACITOR ELECTROLYTIC 470MF 16V	C805G	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C665	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C805R	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C666	0800012	CAPACITOR ELECTROLYTIC 4.7MF 50V	C807B	0244105	CD 2200PF +-10% 50V
C668	0880044	PF 0.01MF +-10% 50V	C807G	0244105	CD 2200PF +-10% 50V
C669	0880062	PF 0.22MF +-10% 50V	C807R	0244105	CD 2200PF +-10% 50V
C670	0880062	PF 0.22MF +-10% 50V	C808B	0244120	CD 820PF +-10% 50V
C7001	0890084	CD 560PF +-10% 50V	C808G	0244120	CD 820PF +-10% 50V

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SYMBOL NO.	PART NO.	DESCRIPTION
C808R	0244115	CD 560PF +-10% 50V
C809R	0244227	CD 100PF +-10% 50V
C901	0800075	CAPACITOR ELECTROLYTIC 470MF 25V
⚠C902	0279718	PF 0.1MF +-10% 125V
⚠C903	0279718	PF 0.1MF +-10% 125V
⚠C906	0248593F	CD 4700PF +80-20% 250V
⚠C907	0248593F	CD 4700PF +80-20% 250V
⚠C908	0248593F	CD 4700PF +80-20% 250V
⚠C909	0248593F	CD 4700PF +80-20% 250V
⚠C910	0259167	EL 820MF 200V
⚠C911	0244501	CD 1000PF +-10% 500V
C912	0244501	CD 1000PF +-10% 500V
C913	0299929	PP 0.18MF +-10% 200V
C914	0243503	CD 150PF +-10% 500V
C915	0890087	CD 1000PF +-10% 50V
C916	0800042	CAPACITOR ELECTROLYTIC 47MF 25V
C917	0800042	CAPACITOR ELECTROLYTIC 47MF 25V
C918	0880062	PF 0.22MF +-10% 50V
C921	0800005	CAPACITOR,ELECTROLYTIC 2.2MF 50V
C923	0800009	CAPACITOR ELECTROLYTIC 4.7MF 25V
C924	0276223	PF 3300PF +-5% 50V
C926	0800003	CAPACITOR ELECTROLYTIC 1MF 50V
⚠C927	0249487	CD 3300PF +-20%
C928	0243511	CD 680PF +-10% 500V
C929	0258178G	EL 470MF,63V
C933	0299969	PP 1000PF +-5% 630V
C934	0299969	PP 1000PF +-5% 630V
C935	0258697	EL 470MF 160V
C936	0253460	EL 100MF 160V
C937	0244105	CD 2200PF +-10% 50V
C938	0880044	PF 0.01MF +-10% 50V
C939	0800018	CAPACITOR ELECTROLYTIC 10MF 50V
C940	0800005	CAPACITOR,ELECTROLYTIC 2.2MF 50V
C941	0890067	CD 33PF +-5% 50V
C942	0880062	PF 0.22MF +-10% 50V
C943	0253943	EL 0.33MF 50V
C946	0247854	CD 100PF +-5% 500V
⚠C951	0259167	EL 820MF 200V
C952	0258178G	EL 470MF,63V
C953	0243511	CD 680PF +-10% 500V
C954	0880062	PF 0.22MF +-10% 50V
C955	0243503	CD 150PF +-10% 500V
C956	0243503	CD 150PF +-10% 500V
C957	0258178G	EL 470MF,63V
C958	0258175	EL 470MF 31.5V
C959	0800044	CAPACITOR ELECTROLYTIC 47MF 50V
C960	0800044	CAPACITOR ELECTROLYTIC 47MF 50V
C961	0800041	CAPACITOR ELECTROLYTIC 47MF 16V
C962	0800044	CAPACITOR ELECTROLYTIC 47MF 50V
C963	0800044	CAPACITOR ELECTROLYTIC 47MF 50V
C964	0800023	CAPACITOR ELECTROLYTIC 22MF 16V
C965	0800044	CAPACITOR ELECTROLYTIC 47MF 50V
C966	0800044	CAPACITOR ELECTROLYTIC 47MF 50V
C967	0800003	CAPACITOR ELECTROLYTIC 1MF 50V
C971	0880062	PF 0.22MF +-10% 50V
C972	0800032	CAPACITOR-ELECTROLYTIC 33MF 16V
C973	0800042	CAPACITOR ELECTROLYTIC 47MF 25V
C974	0800042	CAPACITOR ELECTROLYTIC 47MF 25V
C976	0258179G	EL 1000MF,6
C977	0243503	CD 150PF +-10% 500V
C980	0247850	CD 68PF +-5% 500V
C983	0800053	CAPACITOR ELECTROLYTIC 100MF 50V
C984	0800053	CAPACITOR ELECTROLYTIC 100MF 50V
C985	0258178G	EL 470MF,63V
C986	0880062	PF 0.22MF +-10% 50V
C987	0258175	EL 470MF 31.5V
C988	0244115F	CD 560PF +-10% 50V
C989	0880062	PF 0.22MF +-10% 50V
C990	0880062	PF 0.22MF +-10% 50V
C991	0880062	PF 0.22MF +-10% 50V
C992	0880062	PF 0.22MF +-10% 50V

RESISTORS

SYMBOL NO.	PART NO.	DESCRIPTION
R0001	0700041	CF 1K OHM +-5% 1/16W
R0002	0700058	CF 22K OHM +-5% 1/16W
R0003	0700058	CF 22K OHM +-5% 1/16W
R0004	0700041	CF 1K OHM +-5% 1/16W
R0005	0700041	CF 1K OHM +-5% 1/16W
R0006	0700041	CF 1K OHM +-5% 1/16W
R0007	0700041	CF 1K OHM +-5% 1/16W
R0008	0700054	CF 10K OHM +-5% 1/16W
R0009	0700048	CF 3.9K OHM +-5% 1/16W
R0012	0700061	CF 33K OHM +-5% 1/16W
R0013	0700054	CF 10K OHM +-5% 1/16W
R0014	0700048	CF 3.9K OHM +-5% 1/16W
R0015	0700054	CF 10K OHM +-5% 1/16W
R0016	0700058	CF 22K OHM +-5% 1/16W
R0017	0700051	CF 5.6K OHM +-5% 1/16W
R0018	0700058	CF 22K OHM +-5% 1/16W
R0019	0700041	CF 1K OHM +-5% 1/16W
R0020	0700054	CF 10K OHM +-5% 1/16W
R0021	0700041	CF 1K OHM +-5% 1/16W
R0022	0700058	CF 22K OHM +-5% 1/16W
R0023	0700041	CF 1K OHM +-5% 1/16W
R0024	0700041	CF 1K OHM +-5% 1/16W
R0025	0700041	CF 1K OHM +-5% 1/16W
R0026	0700041	CF 1K OHM +-5% 1/16W
R0027	0700058	CF 22K OHM +-5% 1/16W
R0028	0700058	CF 22K OHM +-5% 1/16W
R0029	0700058	CF 22K OHM +-5% 1/16W
R0030	0700058	CF 22K OHM +-5% 1/16W
R0031	0700041	CF 1K OHM +-5% 1/16W
R0032	0700041	CF 1K OHM +-5% 1/16W
R0033	0700041	CF 1K OHM +-5% 1/16W
R0034	0700041	CF 1K OHM +-5% 1/16W
R0036	0700045	CF 2.2K OHM +-5% 1/16W
R0037	0700058	CF 22K OHM +-5% 1/16W
R0040	0700056	CF 15K OHM +-5% 1/16W
R0041	0700048	CF 3.9K OHM +-5% 1/16W

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SYMBOL NO.	PART NO.	DESCRIPTION	SYMBOL NO.	PART NO.	DESCRIPTION
R0042	0700054	CF 10K OHM +-5% 1/16W	R0102	0700041	CF 1K OHM +-5% 1/16W
R0043	0700056	CF 15K OHM +-5% 1/16W	R0103	0700045	CF 2.2K OHM +-5% 1/16W
R0044	0700064	CF 56K OHM +-5% 1/16W	R0104	0700041	CF 1K OHM +-5% 1/16W
R0045	0700067	CF 100K OHM +-5% 1/16W	R0105	0700041	CF 1K OHM +-5% 1/16W
R0046	0700063	CF 47K OHM +-5% 1/16W	R0106	0700045	CF 2.2K OHM +-5% 1/16W
R0047	0700041	CF 1K OHM +-5% 1/16W	R0107	0700041	CF 1K OHM +-5% 1/16W
R0048	0700063	CF 47K OHM +-5% 1/16W	R0108	0700041	CF 1K OHM +-5% 1/16W
R0049	0700041	CF 1K OHM +-5% 1/16W	R0109	0700058	CF 22K OHM +-5% 1/16W
R0050	0700063	CF 47K OHM +-5% 1/16W	R0110	0700041	CF 1K OHM +-5% 1/16W
R0051	0700041	CF 1K OHM +-5% 1/16W	R0111	0700058	CF 22K OHM +-5% 1/16W
R0052	0700041	CF 1K OHM +-5% 1/16W	R0112	0700039	CF 820 OHM +-5% 1/16W
R0053	0700041	CF 1K OHM +-5% 1/16W	R0113	0700052	CF 6.8K OHM +-5% 1/16W
R0054	0700041	CF 1K OHM +-5% 1/16W	R0114	0700039	CF 820 OHM +-5% 1/16W
R0055	0700041	CF 1K OHM +-5% 1/16W	R0115	0700052	CF 6.8K OHM +-5% 1/16W
R0056	0700064	CF 56K OHM +-5% 1/16W	R0116	0700039	CF 820 OHM +-5% 1/16W
R0057	0700043	CF 1.5K OHM +-5% 1/16W	R0117	0700052	CF 6.8K OHM +-5% 1/16W
R0058	0700049	CF 4.7K OHM +-5% 1/16W	R0118	0114169	CF 2.2K OHM +-5% 1/4W
R0059	0700045	CF 2.2K OHM +-5% 1/16W	R0119	0700027	CF 100 OHM +-5% 1/16W
R0060	0700058	CF 22K OHM +-5% 1/16W	R0120	0114161	CF 1K OHM +-5% 1/4W
R0061	0700058	CF 22K OHM +-5% 1/16W	R0121	0700027	CF 100 OHM +-5% 1/16W
R0062	0700061	CF 33K OHM +-5% 1/16W	R0122	0114161	CF 1K OHM +-5% 1/4W
R0063	0700027	CF 100 OHM +-5% 1/16W	R0123	0700027	CF 100 OHM +-5% 1/16W
R0065	0700067	CF 100K OHM +-5% 1/16W	R0124	0700041	CF 1K OHM +-5% 1/16W
R0066	0700058	CF 22K OHM +-5% 1/16W	R0125	0700067	CF 100K OHM +-5% 1/16W
R0067	0700049	CF 4.7K OHM +-5% 1/16W	R0126	0700054	CF 10K OHM +-5% 1/16W
R0068	0700031	CF 180 OHM +-5% 1/16W	R0127	0700046	CF 2.7K OHM +-5% 1/16W
R0069	0700047	CF 3.3K OHM +-5% 1/16W	R0128	0700054	CF 10K OHM +-5% 1/16W
R0070	0700066	CF 82K OHM +-5% 1/16W	R0129	0700041	CF 1K OHM +-5% 1/16W
R0071	0700066	CF 82K OHM +-5% 1/16W	R0130	0700067	CF 100K OHM +-5% 1/16W
R0072	0700054	CF 10K OHM +-5% 1/16W	R0131	0700054	CF 10K OHM +-5% 1/16W
R0073	0700054	CF 10K OHM +-5% 1/16W	R0132	0700046	CF 2.7K OHM +-5% 1/16W
R0074	0700041	CF 1K OHM +-5% 1/16W	R0133	0700054	CF 10K OHM +-5% 1/16W
R0075	0700041	CF 1K OHM +-5% 1/16W	R0135	0700052	CF 6.8K OHM +-5% 1/16W
R0076	0700041	CF 1K OHM +-5% 1/16W	R0136	0700052	CF 6.8K OHM +-5% 1/16W
R0077	0700041	CF 1K OHM +-5% 1/16W	R0137	0113703	CF 12 OHM +-5% 1/2W
R0078	0700067	CF 100K OHM +-5% 1/16W	R0138	0700036	CF 470 OHM +-5% 1/16W
R0079	0700041	CF 1K OHM +-5% 1/16W	⚠R0139	0119687	FR 4.7 OHM +-5% 1/4W
R0080	0700041	CF 1K OHM +-5% 1/16W	R0140	0700041	CF 1K OHM +-5% 1/16W
R0081	0700041	CF 1K OHM +-5% 1/16W	R0141	0700041	CF 1K OHM +-5% 1/16W
R0082	0700041	CF 1K OHM +-5% 1/16W	R0142	0700041	CF 1K OHM +-5% 1/16W
R0083	0700041	CF 1K OHM +-5% 1/16W	R0143	0700063	CF 47K OHM +-5% 1/16W
R0084	0700045	CF 2.2K OHM +-5% 1/16W	R0144	0700041	CF 1K OHM +-5% 1/16W
R0085	0700041	CF 1K OHM +-5% 1/16W	R0145	0700051	CF 5.6K OHM +-5% 1/16W
R0086	0700041	CF 1K OHM +-5% 1/16W	⚠R0146	0150136	VR 5K OHM-B
R0087	0700045	CF 2.2K OHM +-5% 1/16W	R0147	0100127	CF 390K OHM +-5% 1/8W
R0088	0700041	CF 1K OHM +-5% 1/16W	R0148	0100119	CF 180K OHM +-5% 1/8W
R0089	0700041	CF 1K OHM +-5% 1/16W	R0149	0100121	CF 220K OHM +-5% 1/8W
R0094	0700045	CF 2.2K OHM +-5% 1/16W	R0150	0700041	CF 1K OHM +-5% 1/16W
R0095	0700052	CF 6.8K OHM +-5% 1/16W	R0151	0700058	CF 22K OHM +-5% 1/16W
R0096	0700056	CF 15K OHM +-5% 1/16W	R0152	0700062	CF 39K OHM +-5% 1/16W
R0097	0700054	CF 10K OHM +-5% 1/16W	R0154	0700041	CF 1K OHM +-5% 1/16W
R0098	0700036	CF 470 OHM +-5% 1/16W	R0155	0700041	CF 1K OHM +-5% 1/16W
R0099	0700046	CF 2.7K OHM +-5% 1/16W	R0156	0700041	CF 1K OHM +-5% 1/16W
R0100	0700041	CF 1K OHM +-5% 1/16W	R0157	0700048	CF 3.9K OHM +-5% 1/16W
R0101	0700041	CF 1K OHM +-5% 1/16W	R0158	0700054	CF 10K OHM +-5% 1/16W

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SYMBOL NO.	PART NO.	DESCRIPTION	SYMBOL NO.	PART NO.	DESCRIPTION
R0159	0700041	CF 1K OHM +-5% 1/16W	R1101	0700054	CF 10K OHM +-5% 1/16W
R0160	0700041	CF 1K OHM +-5% 1/16W	R1102	0700054	CF 10K OHM +-5% 1/16W
R0161	0700041	CF 1K OHM +-5% 1/16W	R1103	0700045	CF 2.2K OHM +-5% 1/16W
R0163	0700041	CF 1K OHM +-5% 1/16W	R1201	0700055	CF 12K OHM +-5% 1/16W
R0165	0114161	CF 1K OHM +-5% 1/4W	⚠R1202	0150136	VR 5K OHM-B
R0166	0700058	CF 22K OHM +-5% 1/16W	R1203	0700055	CF 12K OHM +-5% 1/16W
R0167	0700051	CF 5.6K OHM +-5% 1/16W	R1204	0700058	CF 22K OHM +-5% 1/16W
R0168	0700057	CF 18K OHM +-5% 1/16W	R1205	0113684	CF 2.2 OHM +-5% 1/2W
R0169	0700054	CF 10K OHM +-5% 1/16W	R1206	0113774	CF 10K OHM +-5% 1/2W
R0170	0700054	CF 10K OHM +-5% 1/16W	R1207	0113701	CF 10 OHM +-5% 1/2W
R0171	0700054	CF 10K OHM +-5% 1/16W	R1208	0100081	CF 4.7K OHM +-5% 1/8W
R0172	0700061	CF 33K OHM +-5% 1/16W	R1209	0700056	CF 15K OHM +-5% 1/16W
R0173	0700041	CF 1K OHM +-5% 1/16W	R1210	0700059	CF 27K OHM +-5% 1/16W
R0174	0700041	CF 1K OHM +-5% 1/16W	R1226	0700055	CF 12K OHM +-5% 1/16W
R0177	0700058	CF 22K OHM +-5% 1/16W	⚠R1227	0150136	VR 5K OHM-B
R0184	0700041	CF 1K OHM +-5% 1/16W	R1228	0700055	CF 12K OHM +-5% 1/16W
R0185	0700037	CF 560 OHM +-5% 1/16W	R1229	0700058	CF 22K OHM +-5% 1/16W
R0186	0700042	CF 1.2K OHM +-5% 1/16W	R1230	0113684	CF 2.2 OHM +-5% 1/2W
R0187	0700041	CF 1K OHM +-5% 1/16W	R1231	0113774	CF 10K OHM +-5% 1/2W
R0188	0700041	CF 1K OHM +-5% 1/16W	R1232	0113701	CF 10 OHM +-5% 1/2W
R0189	0700041	CF 1K OHM +-5% 1/16W	R1233	0100081	CF 4.7K OHM +-5% 1/8W
R0190	0700041	CF 1K OHM +-5% 1/16W	R1234	0700056	CF 15K OHM +-5% 1/16W
R0191	0700041	CF 1K OHM +-5% 1/16W	R1235	0700056	CF 15K OHM +-5% 1/16W
R0192	0700058	CF 22K OHM +-5% 1/16W	R1251	0700055	CF 12K OHM +-5% 1/16W
R0194	0700058	CF 22K OHM +-5% 1/16W	⚠R1252	0150136	VR 5K OHM-B
R0195	0700058	CF 22K OHM +-5% 1/16W	R1253	0700055	CF 12K OHM +-5% 1/16W
R0196	0100065	CF 1K OHM +-5% 1/8W	R1254	0700058	CF 22K OHM +-5% 1/16W
R0197	0700058	CF 0 22K OHM +-5% 1/16W	R1255	0113684	CF 2.2 OHM +-5% 1/2W
R0198	0700058	CF 22K OHM +-5% 1/16W	R1256	0113774	CF 10K OHM +-5% 1/2W
R0199	0700058	CF 22K OHM +-5% 1/16W	R1257	0113701	CF 10 OHM +-5% 1/2W
R0200	0700058	CF 22K OHM +-5% 1/16W	R1258	0100081	CF 4.7K OHM +-5% 1/8W
R0204	0700041	CF 1K OHM +-5% 1/16W	R1259	0700056	CF 15K OHM +-5% 1/16W
R0205	0700041	CF 1K OHM +-5% 1/16W	R1260	0700056	CF 15K OHM +-5% 1/16W
R0206	0700041	CF 1K OHM +-5% 1/16W	R1276	0700053	CF 8.2K OHM +-5% 1/16W
R0208	0700055	CF 12K OHM +-5% 1/16W	R1277	0700053	CF 8.2K OHM +-5% 1/16W
R0209	0700058	CF 22K OHM +-5% 1/16W	R1278	0700066	CF 82K OHM +-5% 1/16W
R0210	0700051	CF 5.6K OHM +-5% 1/16W	R1279	0700054	CF 10K OHM +-5% 1/16W
R0211	0700052	CF 6.8K OHM +-5% 1/16W	R1280	0700037	CF 560 OHM +-5% 1/16W
R0212	0700067	CF 100K OHM +-5% 1/16W	R1281	0700049	CF 4.7K OHM +-5% 1/16W
R0213	0700041	CF 1K OHM +-5% 1/16W	R1282	0700054	CF 10K OHM +-5% 1/16W
R0214	0700057	CF 18K OHM +-5% 1/16W	R1283	0700041	CF 1K OHM +-5% 1/16W
R0215	0700041	CF 1K OHM +-5% 1/16W	R1284	0700054	CFM 10K OHM +-5% 1/16W
R0216	0700043	CF 1.5K OHM +-5% 1/16W	R1285	0700054	CF 10K OHM +-5% 1/16W
R0217	0700058	CF 22K OHM +-5% 1/16W	R1286	0700054	CF 10K OHM +-5% 1/16W
R0218	0700027	CF 100 OHM +-5% 1/16W	R1291	0110369	MF 10K OHM +-5% 3W
R0219	0700041	CF 1K OHM +-5% 1/16W	R1292	0110353	MF 2.2K OHM +-5% 3W
R0220	0700058	CF 22K OHM +-5% 1/16W	R1293	0119722	MF 1 OHM +-5% 1W
R0221	0700058	CF 22K OHM +-5% 1/16W	R1294	0119722	MF 1 OHM +-5% 1W
R0222	0700058	CF 22K OHM +-5% 1/16W	R1301	0700063	CF 47K OHM +-5% 1/16W
R0224	0700051	CF 5.6K OHM +-5% 1/16W	R1302	0110229	MF 220 OHM +-5% 2W
R0225	0700059	CF 27K OHM +-5% 1/16W	R1303	0113696	CF 6.8 OHM +-5% 1/2W
R0226	0700067	CF 100K OHM +-5% 1/16W	R1304	0113696	CF 6.8 OHM +-5% 1/2W
R0229	0700046	CF 2.7K OHM +-5% 1/16W	R1306	0100077	CF 3.3K OHM +-5% 1/8W
R0230	0700041	CF 1K OHM +-5% 1/16W	R1308	0700054	CF 10K OHM +-5% 1/16W
R0231	0700041	CF 1K OHM +-5% 1/16W	R1309	0700056	CF 15K OHM +-5% 1/16W

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SYMBOL NO.	PART NO.	DESCRIPTION
R1311	0700063	CF 47K OHM +-5% 1/16W
R1312	0110225	MF 150 OHM +-5% 2W
R1313	0113692	CF 4.7 OHM +-5% 1/2W
R1314	0113692	CF 4.7 OHM +-5% 1/2W
R1316	0100077	CF 3.3K OHM +-5% 1/8W
R1318	0700063	CF 47K OHM +-5% 1/16W
R1319	0700058	CF 22K OHM +-5% 1/16W
R1326	0700063	CF 47K OHM +-5% 1/16W
R1327	0110229	MF 220 OHM +-5% 2W
R1328	0113696	CF 6.8 OHM +-5% 1/2W
R1329	0113696	CF 6.8 OHM +-5% 1/2W
R1331	0100077	CF 3.3K OHM +-5% 1/8W
R1336	0700063	CF 47K OHM +-5% 1/16W
R1337	0110225	MF 150 OHM +-5% 2W
R1338	0113692	CF 4.7 OHM +-5% 1/2W
R1339	0113692	CF 4.7 OHM +-5% 1/2W
R1341	0100077	CF 3.3K OHM +-5% 1/8W
R1351	0700063	CF 47K OHM +-5% 1/16W
R1352	0110229	MF 220 OHM +-5% 2W
R1353	0113696	CF 6.8 OHM +-5% 1/2W
R1354	0113696	CF 6.8 OHM +-5% 1/2W
R1356	0100077	CF 3.3K OHM +-5% 1/8W
R1358	0700054	CF 10K OHM +-5% 1/16W
R1359	0700056	CF 15K OHM +-5% 1/16W
R1361	0700063	CF 47K OHM +-5% 1/16W
R1362	0110225	MF 150 OHM +-5% 2W
R1363	0113692	CF 4.7 OHM +-5% 1/2W
R1364	0113692	CF 4.7 OHM +-5% 1/2W
R1366	0100077	CF 3.3K OHM +-5% 1/8W
R1368	0700063	CF 47K OHM +-5% 1/16W
R1369	0700058	CF 22K OHM +-5% 1/16W
R1390	0700044	CF 1.8K OHM +-5% 1/16W
R1401	0700045	CF 2.2K OHM +-5% 1/16W
R1402	0700041	CF 1K OHM +-5% 1/16W
R1403	0700041	CF 1K OHM +-5% 1/16W
R1404	0700037	CF 560 OHM +-5% 1/16W
R1410	0700067	CF 100K OHM +-5% 1/16W
R1411	0700067	CF 100K OHM +-5% 1/16W
R1412	0187038	CF 75 OHM +-5% 1/16W
R1413	0187038	CF 75 OHM +-5% 1/16W
R1414	0187038	CF 75 OHM +-5% 1/16W
R1415	0159922	VR 5K OHM-B
R1416	0700032	CF 220 OHM +-5% 1/16W
R1432	0159921	VR 20K OHM-B RV-9
R2001	0700061	CF 33K OHM +-5% 1/16W
R2002	0700051	CF 5.6K OHM +-5% 1/16W
R2003	0700058	CF 22K OHM +-5% 1/16W
R2004	0700051	CF 5.6K OHM +-5% 1/16W
R2005	0700054	CF 10K OHM +-5% 1/16W
R2006	0114131	CF 100 OHM +-5% 1/4W
R2007	0700054	CF 10K OHM +-5% 1/16W
R2008	0700054	CF 10K OHM +-5% 1/16W
R2009	0700045	CF 2.2K OHM +-5% 1/16W
R2010	0700034	CF 330 OHM +-5% 1/16W
R2011	0700051	CF 5.6K OHM +-5% 1/16W
R2012	0700058	CF 22K OHM +-5% 1/16W
R2013	0700064	CF 56K OHM +-5% 1/16W
R2014	0700036	CF 470 OHM +-5% 1/16W
R2015	0700041	CF 1K OHM +-5% 1/16W
R2016	0700041	CF 1K OHM +-5% 1/16W
R2017	0700041	CF 1K OHM +-5% 1/16W
R2018	0700058	CF 22K OHM +-5% 1/16W
R2019	0700051	CF 5.6K OHM +-5% 1/16W
R2020	0150115	VR 20K OHM-B
R2021	0700058	CF 22K OHM +-5% 1/16W
R2022	0700051	CF 5.6K OHM +-5% 1/16W
R2023	0700058	CF 22K OHM +-5% 1/16W
R2024	0700064	CF 56K OHM +-5% 1/16W
R2025	0700041	CF 1K OHM +-5% 1/16W
R2026	0700041	CF 1K OHM +-5% 1/16W
R2027	0700045	CF 2.2K OHM +-5% 1/16W
R2028	0700034	CF 330 OHM +-5% 1/16W
R2029	0700041	CF 1K OHM +-5% 1/16W
R2030	0700058	CF 22K OHM +-5% 1/16W
R2031	0700041	CF 1K OHM +-5% 1/16W
R2032	0700045	CF 2.2K OHM +-5% 1/16W
R2033	0700041	CF 1K OHM +-5% 1/16W
R2034	0700043	CF 1.5K OHM +-5% 1/16W
R2035	0700048	CF 3.9K OHM +-5% 1/16W
R2036	0700045	CF 2.2K OHM +-5% 1/16W
R2037	0700048	CF 3.9K OHM +-5% 1/16W
R2401	0700046	CF 2.7K OHM +-5% 1/16W
R2402	0700053	CF 8.2K OHM +-5% 1/16W
R2403	0700046	CF 2.7K OHM +-5% 1/16W
R2404	0700046	CF 2.7K OHM +-5% 1/16W
R2405	0700046	CF 2.7K OHM +-5% 1/16W
R2406	0700054	CF 10K OHM +-5% 1/16W
R2410	0700049	CF 4.7K OHM +-5% 1/16W
R2411	0700051	CF 5.6K OHM +-5% 1/16W
R2412	0700049	CF 4.7K OHM +-5% 1/16W
R2413	0700041	CF 1K OHM +-5% 1/16W
R2416	0700054	CF 10K OHM +-5% 1/16W
R2417	0700054	CF 10K OHM +-5% 1/16W
R2418	0700054	CF 10K OHM +-5% 1/16W
R3001	0700027	CF 100 OHM +-5% 1/16W
R3002	0700027	CF 100 OHM +-5% 1/16W
R3020	0700034	CF 330 OHM +-5% 1/16W
R3022	0100047	CF 180 OHM +-5% 1/8W
R3025	0187038	CF 75 OHM +-5% 1/16W
R3026	0187038	CF 75 OHM +-5% 1/16W
R3033	0700041	CF 1K OHM +-5% 1/16W
R3035	0700067	CF 100K OHM +-5% 1/16W
R3036	0700041	CF 1K OHM +-5% 1/16W
R3037	0700067	CF 100K OHM +-5% 1/16W
R3038	0700026	CF 82 OHM +-5% 1/16W
R3039	0700067	CF 100K OHM +-5% 1/16W
R304	0700067	CF 100K OHM +-5% 1/16W
R305	0700058	CF 22K OHM +-5% 1/16W
R306	0700055	CF 12K OHM +-5% 1/16W
R3063	0700027	CF 100 OHM +-5% 1/16W

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SYMBOL NO.	PART NO.	DESCRIPTION
R3065	0700039	CF 820 OHM +-5% 1/16W
R3066	0700041	CF 1K OHM +-5% 1/16W
R3068	0700041	CF 1K OHM +-5% 1/16W
R3069	0700041	CF 1K OHM +-5% 1/16W
R307	0700058	CF 22K OHM +-5% 1/16W
R308	0700064	CF 56K OHM +-5% 1/16W
R3081	0700041	CF 1K OHM +-5% 1/16W
R3082	0700041	CF 1K OHM +-5% 1/16W
R3083	0700027	CF 100 OHM +-5% 1/16W
R3084	0700041	CF 1K OHM +-5% 1/16W
R3085	0700041	CF 1K OHM +-5% 1/16W
R3086	0700027	CF 100 OHM +-5% 1/16W
R309	0700048	CF 3.9K OHM +-5% 1/16W
R3094	0700039	CF 820 OHM +-5% 1/16W
R3095	0700027	CF 100 OHM +-5% 1/16W
R3096	0700027	CF 100 OHM +-5% 1/16W
R3097	0700054	CF 10K OHM +-5% 1/16W
R3098	0700054	CF 10K OHM +-5% 1/16W
R3099	0700054	CF 10K OHM +-5% 1/16W
R310	0700051	CF 5.6K OHM +-5% 1/16W
R3100	0700054	CF 10K OHM +-5% 1/16W
R3101	0700027	CF 100 OHM +-5% 1/16W
R3103	0700031	CF 180 OHM +-5% 1/16W
R3104	0700063	CF 47K OHM +-5% 1/16W
R3105	0700063	CF 47K OHM +-5% 1/16W
R3106	0700039	CF 820 OHM +-5% 1/16W
R3107	0700041	CF 1K OHM +-5% 1/16W
R3108	0700041	CF 1K OHM +-5% 1/16W
R3109	0700038	CF 680 OHM +-5% 1/16W
R311	0700053	CF 8.2K OHM +-5% 1/16W
R3111	0700027	CF 100 OHM +-5% 1/16W
R3112	0187038	CF 75 OHM +-5% 1/16W
R3113	0700041	CF 1K OHM +-5% 1/16W
R3114	0700067	CF 100K OHM +-5% 1/16W
R3115	0700041	CF 1K OHM +-5% 1/16W
R3116	0700067	CF 100K OHM +-5% 1/16W
R3117	0187038	CF 75 OHM +-5% 1/16W
R3118	0700067	CF 100K OHM +-5% 1/16W
R3119	0700067	CF 100K OHM +-5% 1/16W
R312	0700055	CF 12K OHM +-5% 1/16W
R3125	0700027	CF 100 OHM +-5% 1/16W
R3126	0700034	CF 330 OHM +-5% 1/16W
R3127	0700041	CF 1K OHM +-5% 1/16W
R3129	0700027	CF 100 OHM +-5% 1/16W
⚠R313	0150136	VR 5K OHM-B
R3130	0700047	CF 3.3K OHM +-5% 1/16W
R3131	0700054	CF 10K OHM +-5% 1/16W
R3132	0700054	CF 10K OHM +-5% 1/16W
R3133	0700027	CF 100 OHM +-5% 1/16W
R3134	0700027	CF 100 OHM +-5% 1/16W
R3135	0700027	CF 100 OHM +-5% 1/16W
R3139	0700041	CF 1K OHM +-5% 1/16W
R314	0700049	CF 4.7K OHM +-5% 1/16W
⚠R3140	0150137	VR 10K OHM-B
R3141	0700045	CF 2.2K OHM +-5% 1/16W
R3142	0700045	CF 2.2K OHM +-5% 1/16W
⚠R3143	0150137	VR 10K OHM-B
R3144	0700045	CF 2.2K OHM +-5% 1/16W
R3145	0700045	CF 2.2K OHM +-5% 1/16W
⚠R3146	0150137	VR 10K OHM-B
R3147	0700047	CF 3.3K OHM +-5% 1/16W
R3148	0700047	CF 3.3K OHM +-5% 1/16W
R3149	0700027	CF 100 OHM +-5% 1/16W
R315	0700051	CF 5.6K OHM +-5% 1/16W
R3150	0700032	CF 220 OHM +-5% 1/16W
R3151	0700027	CF 100 OHM +-5% 1/16W
R3152	0700032	CF 220 OHM +-5% 1/16W
R3153	0700027	CF 100 OHM +-5% 1/16W
R3154	0700032	CF 220 OHM +-5% 1/16W
R3155	0700027	CF 100 OHM +-5% 1/16W
R3156	0700041	CF 1K OHM +-5% 1/16W
R3157	0700041	CF 1K OHM +-5% 1/16W
R3158	0700061	CF 33K OHM +-5% 1/16W
R316	0700047	CF 3.3K OHM +-5% 1/16W
R3160	0700061	CF 33K OHM +-5% 1/16W
R3166	0700054	CF 10K OHM +-5% 1/16W
R3167	0100045	CF 150 OHM +-5% 1/8W
R3168	0700041	CF 1K OHM +-5% 1/16W
R3169	0700041	CF1K OHM +-5% 1/16W
R317	0700039	CF 820 OHM +-5% 1/16W
R3170	0700041	CF 1K OHM +-5% 1/16W
R3171	0700054	CF 10K OHM +-5% 1/16W
R3172	0700041	CF 1K OHM +-5% 1/16W
R3173	0700027	CF 100 OHM +-5% 1/16W
R3174	0700054	CF 10K OHM +-5% 1/16W
R3175	0700049	CF 4.7K OHM +-5% 1/16W
R3176	0150137	VR 10K OHM-B
R3179	0700043	CF 1.5K OHM +-5% 1/16W
R318	0100117	CF 150K OHM +-5% 1/8W
R3180	0700038	CF 680 OHM +-5% 1/16W
R3181	0700054	CF 10K OHM +-5% 1/16W
R319	0700049	CF 4.7K OHM +-5% 1/16W
R320	0100123	CF 270K OHM +-5% 1/8W
R321	0700054	CF 10K OHM +-5% 1/16W
R322	0700049	CF 4.7K OHM +-5% 1/16W
R323	0700058	CF 22K OHM +-5% 1/16W
R324	0700057	CF 18K OHM +-5% 1/16W
R325	0700041	CF 1K OHM +-5% 1/16W
R326	0700045	CF 2.2K OHM +-5% 1/16W
R327	0700039	CF 820 OHM +-5% 1/16W
R328	0700043	CF 1.5K OHM +-5% 1/16W
R329	0700046	CF 2.7K OHM +-5% 1/16W
R3301	0700041	CF1K OHM +-5% 1/16W
R3302	0700041	CF 1K OHM +-5% 1/16W
R3303	0700041	CF 1K OHM +-5% 1/16W
R3305	0700058	CF 22K OHM +-5% 1/16W
R3306	0700058	CF 22K OHM +-5% 1/16W
R3307	0700058	CF 22K OHM +-5% 1/16W
R3308	0700058	CF 22K OHM +-5% 1/16W
R3309	0700058	CF 22K OHM +-5% 1/16W

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SYMBOL NO.	PART NO.	DESCRIPTION	SYMBOL NO.	PART NO.	DESCRIPTION
R331	0700038	CF 680 OHM +-5% 1/16W	R353	0700058	CF 22K OHM +-5% 1/16W
R3310	0700041	CF 1K OHM +-5% 1/16W	R354	0700067	CF 100K OHM +-5% 1/16W
R3311	0700041	CF 1K OHM +-5% 1/16W	R355	0700049	CF 4.7K OHM +-5% 1/16W
R3312	0700041	CF 1K OHM +-5% 1/16W	R356	0700048	CF 3.9K OHM +-5% 1/16W
R3313	0700041	CF 1K OHM +-5% 1/16W	R358	0700041	CF 1K OHM +-5% 1/16W
R3314	0700041	CF 1K OHM +-5% 1/16W	R359	0700054	CF 10K OHM +-5% 1/16W
R3315	0700067	CF 100K OHM +-5% 1/16W	R361	0700043	CF 1.5K OHM +-5% 1/16W
R3316	0700063	CF 47K OHM +-5% 1/16W	R362	0700027	CF 100 OHM +-5% 1/16W
R3317	0700037	CF 560 OHM +-5% 1/16W	R363	0700027	CF 100 OHM +-5% 1/16W
R3318	0700041	CF 1K OHM +-5% 1/16W	R364	0100053	CF 330 OHM +-5% 1/8W
R3319	0187066	CF 1.1K OHM +-5% 1/16W	R365	0700045	CF 2.2K OHM +-5% 1/16W
R332	0700038	CF 680 OHM +-5% 1/16W	R366	0700041	CF 1K OHM +-5% 1/16W
R3320	0700063	CF 47K OHM +-5% 1/16W	R367	0100053	CF 330 OHM +-5% 1/8W
R3321	0700064	CF 56K OHM +-5% 1/16W	R368	0700025	CF 68 OHM +-5% 1/16W
R3322	0700045	CF 2.2K OHM +-5% 1/16W	R371	0700056	CF 15K OHM +-5% 1/16W
R3325	0700027	CF 100 OHM +-5% 1/16W	R372	0700058	CF 22K OHM +-5% 1/16W
R3326	0700036	CF 470 OHM +-5% 1/16W	R373	0700028	CF 120 OHM +-5% 1/16W
R3327	0700036	CF 470 OHM +-5% 1/16W	R374	0700058	CF 22K OHM +-5% 1/16W
R3329	0700027	CF 100 OHM +-5% 1/16W	R375	0700058	CF 22K OHM +-5% 1/16W
R333	0700042	CF 1.2K OHM +-5% 1/16W	R378	0700034	CF 330 OHM +-5% 1/16W
R3330	0700037	CF 560 OHM +-5% 1/16W	R379	0700033	CF 270 OHM +-5% 1/16W
R3331	0700046	CF 2.7K OHM +-5% 1/16W	R381	0700054	CF 10K OHM +-5% 1/16W
R334	0700061	CF 33K OHM +-5% 1/16W	R382	0700067	CF 100K OHM +-5% 1/16W
R3342	0700058	CF 22K OHM +-5% 1/16W	R383	0700032	CF 220 OHM +-5% 1/16W
R3343	0700058	CF 22K OHM +-5% 1/16W	R384	0700028	CF 120 OHM +-5% 1/16W
R3344	0700042	CF 1.2K OHM +-5% 1/16W	R385	0700022	CF 39 OHM +-5% 1/16W
R3345	0700063	CF 47K OHM +-5% 1/16W	R386	0700027	CF 100 OHM +-5% 1/16W
R3346	0700062	CF 39K OHM +-5% 1/16W	R387	0700037	CF 560 OHM +-5% 1/16W
R3347	0700058	CF 22K OHM +-5% 1/16W	R388	0100053	CF 330 OHM +-5% 1/8W
R3348	0700061	CF 33K OHM +-5% 1/16W	R389	0700025	CF 68 OHM +-5% 1/16W
R3349	0700041	CF 1K OHM +-5% 1/16W	R392	0700037	CF 560 OHM +-5% 1/16W
R335	0700058	CF 22K OHM +-5% 1/16W	R396	0700041	CF 1K OHM +-5% 1/16W
R3350	0700061	CF 33K OHM +-5% 1/16W	R397	0700044	CF 1.8K OHM +-5% 1/16W
R3351	0700058	CF 22K OHM +-5% 1/16W	R398	0700032	CF 220 OHM +-5% 1/16W
R3352	0700041	CF 1K OHM +-5% 1/16W	R399	0700058	CF 22K OHM +-5% 1/16W
R3353	0700027	CF 100 OHM +-5% 1/16W	R4001	0110311	MF 39 OHM +-5% 3W
R3354	0700027	CF 100 OHM +-5% 1/16W	R4003	0114161	CF 1K OHM +-5% 1/4W
R336	0700027	CF 100 OHM +-5% 1/16W	R4004	0114145	CF 390 OHM +-5% 1/4W
R337	0700044	CF 1.8K OHM +-5% 1/16W	R4005	0114145	CF 390 OHM +-5% 1/4W
R338	0700063	CF 47K OHM +-5% 1/16W	R4010	0700041	CF 1K OHM +-5% 1/16W
R339	0100055	CF 390 OHM +-5% 1/8W	R4011	0700054	CF 10K OHM +-5% 1/16W
R340	0700041	CF 1K OHM +-5% 1/16W	R4012	0700062	CF 39K OHM +-5% 1/16W
R341	0700039	CF 820 OHM +-5% 1/16W	R4014	0700034	CF 330 OHM +-5% 1/16W
R342	0700061	CF 33K OHM +-5% 1/16W	R4015	0700052	CF 6.8K OHM +-5% 1/16W
R343	0700039	CF 820 OHM +-5% 1/16W	R4016	0700041	CF 1K OHM +-5% 1/16W
R344	0700041	CF 1K OHM +-5% 1/16W	R4017	0700041	CF 1K OHM +-5% 1/16W
R345	0700052	CF 6.8K OHM +-5% 1/16W	R4018	0700067	CF 100K OHM +-5% 1/16W
R346	0700054	CF 10K OHM +-5% 1/16W	R4019	0700051	CF 5.6K OHM +-5% 1/16W
R347	0700058	CF 22K OHM +-5% 1/16W	R4020	0700041	CF 1K OHM +-5% 1/16W
⚠R348	0150137	VR 10K OHM-B	R4021	0700041	CF 1K OHM +-5% 1/16W
R349	0700059	CF 27K OHM +-5% 1/16W	R4022	0700051	CF 5.6K OHM +-5% 1/16W
R350	0700059	CF 27K OHM +-5% 1/16W	R4023	0700054	CF 10K OHM +-5% 1/16W
R3505	0700027	CF 100 OHM +-5% 1/16W	R4024	0700062	CF 39K OHM +-5% 1/16W
R351	0700058	CF 22K OHM +-5% 1/16W	R4026	0700034	CF 330 OHM +-5% 1/16W
R352	0700058	CF 22K OHM +-5% 1/16W	R4027	0700052	CF 6.8K OHM +-5% 1/16W

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SYMBOL NO.	PART NO.	DESCRIPTION	SYMBOL NO.	PART NO.	DESCRIPTION
R4028	0700041	CF 1K OHM +-5% 1/16W	R4105	0700054	CF 10K OHM +-5% 1/16W
R4029	0700041	CF 1K OHM +-5% 1/16W	R4106	0700054	CF 10K OHM +-5% 1/16W
R4030	0700067	CF 100K OHM +-5% 1/16W	R4107	0700054	CF 10K OHM +-5% 1/16W
R4031	0700041	CF 1K OHM +-5% 1/16W	R4109	0114161	CF 1K OHM +-5% 1/4W
R4032	0114139	CF 220 OHM +-5% 1/4W	R4116	0700061	CF 33K OHM +-5% 1/16W
R4034	0700063	CF 47K OHM +-5% 1/16W	R4118	0700045	CF 2.2K OHM +-5% 1/16W
R4035	0700049	CF 4.7K OHM +-5% 1/16W	R4119	0700067	CF 100K OHM +-5%1/16W
R4036	0700049	CF 4.7K OHM +-5% 1/16W	R4120	0700067	CF 100K OHM +-5% 1/16W
R4037	0700054	CF 10K OHM +-5% 1/16W	R4121	0700027	CF 100 OHM +-5% 1/16W
R4039	0700065	CF 68K OHM +-5% 1/16W	R4122	0700067	CF 100K OHM +-5% 1/16W
R4041	0700065	CF 68K OHM +-5% 1/16W	R4124	0700041	CF 1K OHM +-5% 1/16W
R4043	0700052	CF 6.8K OHM +-5% 1/16W	R4125	0700041	CF 1K OHM +-5% 1/16W
R4045	0700054	CF 10K OHM +-5% 1/16W	R4126	0700045	CF 2.2K OHM +-5% 1/16W
R4046	0700055	CF 12K OHM +-5% 1/16W	R4127	0700045	CF 2.2K OHM +-5% 1/16W
R4048	0700043	CF 1.5K OHM +-5% 1/16W	R4134	0700041	CF 1K OHM +-5% 1/16W
R4049	0700038	CF 680 OHM +-5% 1/16W	R4135	0700041	CF 1K OHM +-5% 1/16W
R4050	0700037	CF 560 OHM +-5% 1/16W	R4136	0700049	CF 4.7K OHM +-5% 1/16W
R4051	0100121	CF 220K OHM +-5% 1/8W	R4137	0700063	CF 47K OHM +-5% 1/16W
R4052	0100121	CF 220K OHM +-5% 1/8W	R4138	0700048	CF 3.9K OHM +-5% 1/16W
R4053	0700038	CF 680 OHM +-5% 1/16W	R4139	0700063	CF 47K OHM +-5% 1/16W
R4054	0700037	CF 560 OHM +-5% 1/16W	R4140	0700049	CF 4.7K OHM +-5% 1/16W
R4055	0700043	CF 1.5K OHM +-5% 1/16W	R4141	0700063	CF 47K OHM +-5% 1/16W
R4057	0700049	CF 4.7K OHM +-5% 1/16W	R4142	0700048	CF 3.9K OHM +-5% 1/16W
R4058	0700054	CF 10K OHM +-5% 1/16W	R4143	0700063	CF 47K OHM +-5% 1/16W
R4059	0700045	CF 2.2K OHM +-5% 1/16W	R4144	0700054	CF 10K OHM +-5% 1/16W
R4066	0700045	CF 2.2K OHM +-5% 1/16W	R4146	0114139	CF 220 OHM +-5% 1/4W
R4067	0700067	CF 100K OHM +-5% 1/16W	R4147	0700041	CF 1K OHM +-5% 1/16W
R4068	0700049	CF 4.7K OHM +-5% 1/16W	R4148	0700067	CF 100K OHM +-5%1/16W
R4069	0700054	CF 10K OHM +-5% 1/16W	R4149	0700067	CF 100K OHM +-5% 1/16W
R4070	0700067	CF 100K OHM +-5% 1/16W	R4150	0700061	CF 33K OHM +-5% 1/16W
R4073	0100061	CF 680 OHM +-5% 1/8W	R4151	0700061	CF 33K OHM +-5% 1/16W
R4074	0700065	CF 68K OHM +-5% 1/16W	R4152	0700056	CF 15K OHM +-5% 1/16W
R4076	0700063	CF 47K OHM +-5% 1/16W	R4153	0700061	CF 33K OHM +-5% 1/16W
R4077	0700049	CF 4.7K OHM +-5% 1/16W	R4154	0700046	CF 2.7K OHM +-5% 1/16W
R4079	0114139	CF 220 OHM +-5% 1/4W	R4155	0700054	CF 10K OHM +-5% 1/16W
R4080	0700061	CF 33K OHM +-5% 1/16W	R4404	0700061	CF 33K OHM +-5% 1/16W
R4081	0700054	CF 10K OHM +-5% 1/16W	R4408	0700061	CF 33K OHM +-5% 1/16W
R4082	0700054	CF 10K OHM +-5% 1/16W	R4410	0100117	CF 150K OHM +-5% 1/8W
R4083	0700041	CF 1K OHM +-5% 1/16W	R4411	0700065	CF 68K OHM +-5% 1/6W
⚠R4084	01195051	FR 2.2 OHM +-5% 1/4W	R4415	0700045	CF 2.2K OHM +-5% 1/16W
⚠R4085	01195051	FR 2.2 OHM +-5% 1/4W	R4416	0700045	CF 2.2K OHM +-5% 1/16W
R4086	0114143	CF 330 OHM +-5% 1/4W	R4419	0100121	CF 220K OHM +-5% 1/8W
R4089	0700058	CF 22K OHM +-5% 1/16W	R4420	0100121	CF 220K OHM +-5% 1/8W
R4090	0700054	CF 10K OHM +-5% 1/16W	R4421	0100121	CF 220K OHM +-5% 1/8W
R4093	0100049	CF 220 OHM +-5% 1/8W	R4422	0100121	CF 220K OHM +-5% 1/8W
R4094	0114143	CF 330 OHM +-5% 1/4W	R4423	0100121	CF 220K OHM +-5% 1/8W
R4095	0700061	CF 33K OHM +-5% 1/16W	R4424	0100121	CF 220K OHM +-5% 1/8W
R4096	0700054	CF 10K OHM +-5% 1/16W	R4425	0100121	CF 220K OHM +-5% 1/8W
R4097	0700054	CF 10K OHM +-5% 1/16W	R4426	0100121	CF 220K OHM +-5% 1/8W
R4098	0700041	CF 1K OHM +-5% 1/16W	R4427	0100121	CF 220K OHM +-5% 1/8W
⚠R4099	01195051	FR 2.2 OHM +-5% 1/4W	R4428	0100121	CF 220K OHM +-5% 1/8W
⚠R4100	01195051	FR 2.2 OHM +-5% 1/4W	R4431	0700064	CF 56K OHM +-5% 1/16W
R4101	0700054	CF 10K OHM +-5% 1/16W	R4432	0700064	CF 56K OHM +-5%1/16W
R4103	0700054	CF 10K OHM +-5% 1/16W	R4433	0700067	CF 100K OHM +-5% 1/16W
R4104	0700054	CF 10K OHM +-5% 1/16W	R4434	0700067	CF 100K OHM +-5% 1/16W

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SYMBOL NO.	PART NO.	DESCRIPTION	SYMBOL NO.	PART NO.	DESCRIPTION
R4435	0700067	CF 100K OHM +-5% 1/16W	R4492	0700064	CF 56K OHM +-5% 1/16W
R4436	0700067	CF 100K OHM +-5% 1/16W	R4493	0187100	CF 30K OHM +-5% 1/16W
R4437	0700067	CF 100K OHM +-5% 1/16W	R4494	0700051	CF 5.6K OHM +-5% 1/16W
R4438	0700067	CF 100K OHM +-5% 1/16W	R4495	0700051	CF 5.6K OHM +-5% 1/16W
R4439	0700067	CF 100K OHM +-5% 1/16W	R4496	0700054	CF 10K OHM +-5% 1/16W
R4440	0700067	CF 100K OHM +-5% 1/16W	R4497	0100125	CF 330K OHM +-5% 1/8W
R4441	0700067	CF 100K OHM +-5% 1/16W	R4498	0100127	CF 390K OHM +-5% 1/8W
R4442	0700067	CF 100K OHM +-5% 1/16W	R4499	0700061	CF 33K OHM +-5% 1/16W
R4443	0700067	CF 100K OHM +-5% 1/16W	R4500	0100121	CF 220K OHM +-5% 1/8W
R4444	0700063	CF 47K OHM +-5% 1/16W	R4501	0100121	CF 220K OHM +-5% 1/8W
R4445	0700063	CF 47K OHM +-5% 1/16W	R4502	0100121	CF 220K OHM +-5% 1/8W
R4446	0700067	CF 100K OHM +-5% 1/16W	R4503	0700064	CF 56K OHM +-5% 1/16W
R4447	0700067	CF 100K OHM +-5% 1/16W	R4504	0700045	CF 2.2K OHM +-5% 1/16W
R4448	0700063	CF 47K OHM +-5% 1/16W	R4505	0700063	CF 47K OHM +-5% 1/16W
R4449	0700063	CF 47K OHM +-5% 1/16W	R4506	0700054	CF 10K OHM +-5% 1/16W
R4450	0700067	CF 100K OHM +-5% 1/16W	R4507	0100059	CF 560 OHM +-5% 1/8W
R4451	0700067	CF 100K OHM +-5% 1/16W	R4508	0700049	CF 4.7K OHM +-5% 1/16W
R4452	0700054	CF 10K OHM +-5% 1/16W	R4509	0100123	CF 270K OHM +-5% 1/8W
R4454	0700041	CF 1K OHM +-5% 1/16W	R4510	0700067	CF 100K OHM +-5% 1/16W
R4455	0700041	CF 1K OHM +-5% 1/16W	R4511	0700054	CF 10K OHM +-5% 1/16W
R4456	0700067	CF 100K OHM +-5% 1/16W	R4512	0700054	CF 10K OHM +-5% 1/16W
R4457	0700067	CF 100K OHM +-5% 1/16W	R4513	0700054	CF 10K OHM +-5% 1/16W
R4458	0700027	CF 100 OHM +-5% 1/16W	R4514	0700054	CF 10K OHM +-5% 1/16W
R4460	0700027	CF 100 OHM +-5% 1/16W	R4515	0700041	CF 1K OHM +-5% 1/16W
R4461	0700054	CF 10K OHM +-5% 1/16W	R4516	0700041	CF 1K OHM +-5% 1/16W
R4462	0700064	CF 56K OHM +-5% 1/16W	R4517	0700041	CF 1K OHM +-5% 1/16W
R4463	0700045	CF 2.2K OHM +-5% 1/16W	R4518	0700041	CF 1K OHM +-5% 1/16W
R4464	0700063	CF 47K OHM +-5% 1/16W	R4521	0700034	CF 330 OHM +-5% 1/16W
R4465	0151717	VR 5K OHM-B R-8	R4522	0700047	CF 3.3K OHM +-5% 1/16W
R4466	0700045	CF 2.2K OHM +-5% 1/16W	R4523	0700045	CF 2.2K OHM +-5% 1/16W
R4467	0700051	CF 5.6K OHM +-5% 1/16W	R4524	0700063	CF 47K OHM +-5% 1/16W
R4468	0700051	CF 5.6K OHM +-5% 1/16W	R4525	0700067	CF 100K OHM +-5% 1/16W
R4469	0700067	CF 100K OHM +-5% 1/16W	R4526	0700067	CF 100K OHM +-5% 1/16W
R4470	0700067	CF 100K OHM +-5% 1/16W	R4527	0700045	CF 2.2K OHM +-5% 1/16W
R4471	0113725	CF 100 OHM +-5% 1/2W	R4528	0700054	CF 10K OHM +-5% 1/16W
R4472	0700027	CF 100 OHM +-5% 1/16W	R4529	0700054	CF 10K OHM +-5% 1/16W
R4473	0700062	CF 39K OHM +-5% 1/16W	R4530	0700054	CF 10K OHM +-5% 1/16W
R4474	0700058	CF 22K OHM +-5% 1/16W	R4531	0700054	CF 10K OHM +-5% 1/16W
R4475	0700054	CF 10K OHM +-5% 1/16W	R4532	0700067	CF 100K OHM +-5% 1/16W
R4476	0187096	CF 20K OHM +-5% 1/16W	R4533	0700061	CF 33K OHM +-5% 1/16W
R4477	0187096	CF 20K OHM +-5% 1/16W	R4534	0100059	CF 560 OHM +-5% 1/8W
R4478	0700054	CF 10K OHM +-5% 1/16W	R4535	0700054	CF 10K OHM +-5% 1/16W
R4479	0700053	CF 8.2K OHM +-5% 1/16W	R4536	0700054	CF 10K OHM +-5% 1/16W
R4480	0700052	CF 6.8K OHM +-5% 1/16W	R4537	0700067	CF 100K OHM +-5% 1/16W
R4481	0700053	CF 8.2K OHM +-5% 1/16W	R4601	0700041	CF 1K OHM +-5% 1/16W
R4482	0700056	CF 15K OHM +-5% 1/16W	R4602	0179536	MG 1M OHM +-5% 1/8W
R4483	0700067	CF 100K OHM +-5% 1/16W	R4603	0700058	CF 22K OHM +-5% 1/16W
R4484	0700041	CF 1K OHM +-5% 1/16W	R4604	0700027	CF 100 OHM +-5% 1/16W
R4485	0700045	CF 2.2K OHM +-5% 1/16W	R4605	0700067	CF 100K OHM +-5% 1/16W
R4486	0700053	CF 8.2K OHM +-5% 1/16W	R4606	0700063	CF 47K OHM +-5% 1/16W
⚠R4487	0119514	FR 10 OHM +-5% 1/4W	R4607	0700067	CF 100K OHM +-5% 1/16W
R4488	0700031	CF 180 OHM +-5% 1/16W	R4608	0700053	CF 8.2K OHM +-5% 1/16W
R4489	0100077	CF 3.3K OHM +-5% 1/8W	R4609	0700056	CF 15K OHM +-5% 1/16W
R4490	0100117	CF 150K OHM +-5% 1/8W	R4610	0150284	VR 2K OHM-B
R4491	0700063	CF 47K OHM +-5% 1/16W	R4611	0700067	CF 100K OHM +-5% 1/16W

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SYMBOL NO.	PART NO.	DESCRIPTION	SYMBOL NO.	PART NO.	DESCRIPTION
R4612	0700067	CF 100K OHM +-5% 1/16W	R4671	0100117	CF 150K OHM +-5% 1/8W
R4613	0700067	CF 100K OHM +-5% 1/16W	R4672	0700061	CF 33K OHM +-5% 1/16W
R4614	0700063	CF 47K OHM +-5% 1/16W	R4673	0700056	CF 15K OHM +-5% 1/16W
R4615	0187086	CF 7.5K OHM +-5% 1/16W	R4674	0700056	CF 15K OHM +-5% 1/16W
R4616	0700054	CF 10K OHM +-5% 1/16W	R4675	0700049	CF 4.7K OHM +-5% 1/16W
R4617	0700054	CF 10K OHM +-5% 1/16W	R4676	0700061	CF 33K OHM +-5% 1/16W
R4618	0100129	CF 470K OHM +-5% 1/8W	R4677	0700061	CF 33K OHM +-5% 1/16W
R4619	0100129	CF 470K OHM +-5% 1/8W	R4678	0700067	CF 100K OHM +-5% 1/16W
R4620	0700063	CF 47K OHM +-5% 1/16W	R4679	0700067	CF 100K OHM +-5% 1/16W
R4621	0187086	CF 7.5K OHM +-5% 1/16W	R4680	0700067	CF 100K OHM +-5% 1/16W
R4622	0700056	CF 15K OHM +-5% 1/16W	R4681	0700044	CF 1.8K OHM +-5% 1/16W
R4623	0700056	CF 15K OHM +-5% 1/16W	R502	0700032	CF 220 OHM +-5% 1/16W
R4624	0700041	CF 1K OHM +-5% 1/16W	R503	0700037	CF 560 OHM +-5% 1/16W
R4625	0700041	CF 1K OHM +-5% 1/16W	R504	0700036	CF 470 OHM +-5% 1/16W
R4626	0700054	CF 10K OHM +-5% 1/16W	R505	0700056	CF 15K OHM +-5% 1/16W
R4627	0700054	CF 10K OHM +-5% 1/16W	R506	0700057	CF 18K OHM +-5% 1/16W
R4628	0700051	CF 5.6K OHM +-5% 1/16W	R507	0700041	CF 1K OHM +-5% 1/16W
R4629	0700051	CF 5.6K OHM +-5% 1/16W	R508	0700053	CF 8.2K OHM +-5% 1/16W
R4630	0700041	CF 1K OHM +-5% 1/16W	R509	0700057	CF 18K OHM +-5% 1/16W
R4633	0700027	CF 100 OHM +-5% 1/16W	R510	0700045	CF 2.2K OHM +-5% 1/16W
R4634	0700041	CF 1K OHM +-5% 1/16W	R511	0700058	CF 22K OHM +-5% 1/16W
R4635	0700041	CF 1K OHM +-5% 1/16W	R512	0700058	CF 22K OHM +-5% 1/16W
R4636	0700067	CF 100K OHM +-5% 1/16W	R513	0700049	CF 4.7K OHM +-5% 1/16W
R4638	0179536	MG 1M OHM +-5% 1/8W	R514	0700049	CF 4.7K OHM +-5% 1/16W
R4639	0179536	MG 1M OHM +-5% 1/8W	R515	0700064	CF 56K OHM +-5% 1/16W
R4640	0700041	CF 1K OHM +-5% 1/16W	R516	0700057	CF 18K OHM +-5% 1/16W
R4641	0700041	CF 1K OHM +-5% 1/16W	R517	0100121	CF 220K OHM +-5% 1/8W
R4642	0700041	CF 1K OHM +-5% 1/16W	R518	0700067	CF 100K OHM +-5% 1/16W
R4644	0700041	CF 1K OHM +-5% 1/16W	R519	0100125	CF 330K OHM +-5% 1/8W
R4645	0700045	CF 2.2K OHM +-5% 1/16W	R520	0700047	CF 3.3K OHM +-5% 1/16W
R4646	0700054	CF 10K OHM +-5% 1/16W	R521	0700054	CF 10K OHM +-5% 1/16W
R4647	0700054	CF 10K OHM +-5% 1/16W	R522	0700055	CF 12K OHM +-5% 1/16W
R4648	0700054	CF 10K OHM +-5% 1/16W	R523	0700054	CF 10K OHM +-5% 1/16W
R4649	0700054	CF 10K OHM +-5% 1/16W	R526	0700047	CF 3.3K OHM +-5% 1/16W
R4650	0700051	CF 5.6K OHM +-5% 1/16W	R527	0700056	CF 15K OHM +-5% 1/16W
R4651	0700041	CF 1K OHM +-5% 1/16W	R528	0700049	CF 4.7K OHM +-5% 1/16W
R4652	0700041	CF 1K OHM +-5% 1/16W	R529	0700057	CF 18K OHM +-5% 1/16W
R4653	0700041	CF 1K OHM +-5% 1/16W	R530	0700054	CF 10K OHM +-5% 1/16W
R4654	0100059	CF 560 OHM +-5% 1/8W	R536	0700058	CF 22K OHM +-5% 1/16W
R4655	0700041	CF 1K OHM +-5% 1/16W	R537	0700058	CF 22K OHM +-5% 1/16W
R4656	0700045	CF 2.2K OHM +-5% 1/16W	R538	0700058	CF 22K OHM +-5% 1/16W
R4657	0700067	CF 100K OHM +-5% 1/16W	R539	0700043	CF 1.5K OHM +-5% 1/16W
R4658	0700067	CF 100K OHM +-5% 1/16W	R540	0700027	CF 100 OHM +-5% 1/16W
R4659	0700063	CF 47K OHM +-5% 1/16W	R542	0700058	CF 22K OHM +-5% 1/16W
R4660	0700063	CF 47K OHM +-5% 1/16W	R543	0700058	CF 22K OHM +-5% 1/16W
R4661	0700063	CF 47K OHM +-5% 1/16W	R544	0700054	CF 10K OHM +-5% 1/16W
R4662	0700063	CF 47K OHM +-5% 1/16W	R545	0700058	CF 22K OHM +-5% 1/16W
R4663	0700027	CF 100 OHM +-5% 1/16W	R546	0700064	CF 56K OHM +-5% 1/16W
R4664	0700067	CF 100K OHM +-5% 1/16W	R547	0700064	CF 56K OHM +-5% 1/16W
R4665	0700061	CF 33K OHM +-5% 1/16W	R548	0100133	CF 680K OHM +-5% 1/8W
R4666	0100117	CF 150K OHM +-5% 1/8W	R549	0700065	CF 68K OHM +-5% 1/16W
R4667	0700061	CF 33K OHM +-5% 1/16W	R550	0700065	CF 68K OHM +-5% 1/16W
R4668	0700061	CF 33K OHM +-5% 1/16W	R551	0700064	CF 56K OHM +-5% 1/16W
R4669	0700061	CF 33K OHM +-5% 1/16W	R601	0700041	CF 1K OHM +-5% 1/16W
R4670	0700061	CF 33K OHM +-5% 1/16W	R602	0700046	CF 2.7K OHM +-5% 1/16W

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SYMBOL NO.	PART NO.	DESCRIPTION	SYMBOL NO.	PART NO.	DESCRIPTION
R603	0100121	CF 220K OHM +-5% 1/8W	R712	0100039	CF 82 OHM +-5% 1/8W
R604	0700046	CF 2.7K OHM +-5% 1/16W	R719	0113789	CF 39K OHM +-5% 1/2W
R605	0700048	CF 3.9K OHM +-5% 1/16W	R720	0700054	CF 10K OHM +-5% 1/16W
R606	0700051	CF 5.6K OHM +-5% 1/16W	R721	0113793	CF 56K OHM +-5% 1/2W
R607	0700059	CF 27K OHM +-5% 1/16W	R722	0100091	CF 12K OHM +-5% 1/8W
R608	0100121	CF 220K OHM +-5% 1/8W	R723	0700044	CF 1.8K OHM +-5% 1/16W
R609	0700061	CF 33K OHM +-5% 1/16W	R724	0700052	CF 6.8K OHM +-5% 1/16W
R610	0700054	CF 10K OHM +-5% 1/16W	R726	0700048	CF 3.9K OHM +-5% 1/16W
R611	0700057	CF 18K OHM +-5% 1/16W	R727	0700046	CF 2.7K OHM +-5% 1/16W
R612	0700045	CF 2.2K OHM +-5% 1/16W	R728	0187086	CF 7.5K OHM +-5% 1/16W
R613	0700027	CF 100 OHM +-5% 1/16W	R729	0113727	CF 120 OHM +-5% 1/2W
R614	0700027	CF 100 OHM +-5% 1/16W	R732	0110129	MF 220 OHM +-5% 1W
R651	0113725	CF 100 OHM +-5% 1/2W	⚠R733	01195121	FR 1 OHM +-5% 1/4W
R652	0113725	CF 100 OHM +-5% 1/2W	⚠R734	0119514	FR 10 OHM +-5% 1/4W
R653	0113725	CF 100 OHM +-5% 1/2W	R739	0110151	MF 1.8K OHM +-5% 1W
R654	0700027	CF 100 OHM +-5% 1/16W	⚠R742	0700063	CF 47K OHM +-5% 1/16W
R656	0100053	CF 330 OHM +-5% 1/8W	R744	0100127	CF 390K OHM +-5% 1/8W
R658	0700041	CF 1K OHM +-5% 1/16W	R750	0100075	CF 2.7K OHM +-5% 1/8W
R659	0700041	CF 1K OHM +-5% 1/16W	R751	0113719	CF 56 OHM +-5% 1/2W
R660	0187108	CF 62K OHM +-5% 1/16W	R753	0110359	MF 3.9K OHM +-5% 3W
R661	0700054	CF 10K OHM +-5% 1/16W	R754	0113766	CF 4.7K OHM +-5% 1/2W
⚠R662	0150138	VR 20K OHM-B	R755	0110359	MF 3.9K OHM +-5% 3W
R663	0187110	CF 75K OHM +-5% 1/16W	R759	0700045	CF 2.2K OHM +-5% 1/16W
R664	0700038	CF 680 OHM +-5% 1/16W	R760	0700051	CF 5.6K OHM +-5% 1/16W
R665	0119722	MF 1 OHM +-5% 1W	R761	0700057	CF 18K OHM +-5% 1/16W
R666	0119722	MF 1 OHM +-5% 1W	R762	0700056	CF 15K OHM +-5% 1/16W
R667	0700051	CF 5.6K OHM +-5% 1/16W	⚠R763	0150137	VR 10K OHM-B
R668	0700061	CF 33K OHM +-5% 1/16W	R764	0700038	CF 680 OHM +-5% 1/16W
R669	0700064	CF 56K OHM +-5% 1/16W	R765	0700042	CF 1.2K OHM +-5% 1/16W
R670	0700065	CF 68K OHM +-5% 1/16W	R767	0700054	CF 10K OHM +-5% 1/16W
R671	0113766	CF 4.7K OHM +-5% 1/2W	R768	0114149	CF 560 OHM +-5% 1/4W
R672	0110129	MF 220 OHM +-5% 1W	R769	0700054	CF 10K OHM +-5% 1/16W
R673	0700061	CF 33K OHM +-5% 1/16W	R770	0100117	CF 150K OHM +-5% 1/8W
R674	0114135	CF 150 OHM +-5% 1/4W	R771	0700047	CF 3.3K OHM +-5% 1/16W
R7001	0700039	CF 820 OHM +-5% 1/16W	R772	0100049	CF 220 OHM +-5% 1/8W
R7002	0100115	CF 120K OHM +-5% 1/8W	R773	0700048	CF 3.9K OHM +-5% 1/16W
R7003	0700049	CF 4.7K OHM +-5% 1/16W	R787	0700052	CF 6.8K OHM +-5% 1/16W
R7004	0700052	CF 6.8K OHM +-5% 1/16W	R790	0700059	CF 27K OHM +-5% 1/16W
R7005	0700049	CF 4.7K OHM +-5% 1/16W	R791	0110101	MF 15 OHM +-5% 1W
R7006	0700049	CF 4.7K OHM +-5% 1/16W	R801B	0110371	MF 12K OHM +-5% 3W
R7007	0700046	CF 2.7K OHM +-5% 1/16W	R801G	0110371	MF 12K OHM +-5% 3W
R7008	0700046	CF 2.7K OHM +-5% 1/16W	R801R	0110371	MF 12K OHM +-5% 3W
R7009	0700047	CF 3.3K OHM +-5% 1/16W	R802B	0110369	MF 10K OHM +-5% 3W
R7010	0700024	CF 56 OHM +-5% 1/16W	R802G	0110369	MF 10K OHM +-5% 3W
R7011	0700033	CF 270 OHM +-5% 1/16W	R802R	0110369	MF 10K OHM +-5% 3W
R7012	0114137	CF 180 OHM +-5% 1/4W	R803B	0113744	CF 560 OHM +-5% 1/2W
R7014	0114147	CF 470 OHM +-5% 1/4W	R803G	0113744	CF 560 OHM +-5% 1/2W
R7019	0700037	CF 560 OHM +-5% 1/16W	R803R	0113744	CF 560 OHM +-5% 1/2W
R7020	0110105	MF 22 OHM +-5% 1W	⚠R804B	0151635	VR 1M OHM-B
R7021	0100027	CF 27 OHM +-5% 1/8W	⚠R804G	0151635	VR 1M OHM-B
R707	0700023	CF 47 OHM +-5% 1/16W	⚠R804R	0151635	VR 1M OHM-B
⚠R708	0110367	MF 8.2K OHM +-5% 3W	R805B	0179534	MG 470K OHM +-5% 1/2W
R709	0113770	CF 6.8K OHM +-5% 1/2W	R805G	0179534	MG 470K OHM +-5% 1/2W
⚠R710	0110369	MF 10K OHM +-5% 3W	R805R	0179534	MG 470K OHM +-5% 1/2W
R711	0119688	MF 0.22 OHM +-5% 1W	R806B	0179534	MG 470K OHM +-5% 1/2W

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SYMBOL NO.	PART NO.	DESCRIPTION	SYMBOL NO.	PART NO.	DESCRIPTION
R806G	0179534	MG 470K OHM +-5% 1/2W	R943	0700054	CF 10K OHM +-5% 1/16W
R806R	0179534	MG 470K OHM +-5% 1/2W	R944	0700044	CF 1.8K OHM +-5% 1/16W
R810B	0100049	CF 220 OHM +-5% 1/8W	R945	0700063	CF 47K OHM +-5% 1/16W
R810G	0100049	CF 220 OHM +-5% 1/8W	R952	0700058	CF 22K OHM +-5% 1/16W
R810R	0100049	CF 220 OHM +-5% 1/8W	R953	0119688	MF 0.22 OHM +-5% 1W
R811B	0100065	CF 1K OHM +-5% 1/8W	R954	0119688	MF 0.22 OHM +-5% 1W
R811G	0100065	CF 1K OHM +-5% 1/8W	R955	0700047	CF 3.3K OHM +-5% 1/16W
R811R	0100065	CF 1K OHM +-5% 1/8W	R956	0700054	CF 10K OHM +-5% 1/16W
R812B	0100040	CF 91 OHM +-5% 1/8W	⚠R957	0700043	CF 1.5K OHM +-5% 1/16W
R812G	0100033	CF 47 OHM +-5% 1/8W	R958	0700044	CF 1.8K OHM +-5% 1/16W
R812R	0100033	CF 47 OHM +-5% 1/8W	R959	0700054	CF 10K OHM +-5% 1/16W
⚠R813G	01513341	VR 200 OHM-B	R960	0110253	MF 2.2K OHM +-5% 2W
⚠R813R	01513341	VR 200 OHM-B	R961	0113797	CF 82K OHM +-5% 1/2W
R814R	0100041	CF 100 OHM +-5% 1/8W	R965	0700042	CF 1.2K OHM +-5% 1/16W
R815B	0100059	CF 560 OHM +-5% 1/8W	R967	0700046	CF 2.7K OHM +-5% 1/16W
R815G	0100059	CF 560 OHM +-5% 1/8W	R968	0700047	CF 3.3K OHM +-5% 1/16W
R815R	0100059	CF 560 OHM +-5% 1/8W	R971	0700043	CF 1.5K OHM +-5% 1/16W
R816B	0114201	CF 10K OHM +-5% 1/4W	R972	0147726	WW 4.7 OHM +-10% 10W
R816G	0114201	CF 10K OHM +-5% 1/4W	R973	0119514	FR 10 OHM +-5% 1/4W
R816R	0114201	CF 10K OHM +-5% 1/4W	R974	0700038	CF 680 OHM +-5% 1/16W
R817B	0100041	CF 100 OHM +-5% 1/8W	R975	0110101	MF 15 OHM +-5% 1W
R817G	0100041	CF 100 OHM +-5% 1/8W	R976	0700045	CF 2.2K OHM +-5% 1/16W
R817R	0100053	CF 330 OHM +-5% 1/8W	R977	0110101	MF 15 OHM +-5% 1W
⚠R901	0139015	CC 1M OHM +-20% 1/2W	⚠R978	0700041	CF 1K OHM +-5% 1/16W
⚠R902	0144151	WW 33 OHM +-5% 2W	R981	0100067	CF 1.2K OHM +-5% 1/8W
⚠R904	0147804	WW 0.75 OHM 16W	R982	0100067	CF 1.2K OHM +-5% 1/8W
R906	0114049	CF 22 OHM +-5% 1/4W	R983	0110177	MF 22K OHM +-5% 1W
R907	0114161	CF 1K OHM +-5% 1/4W			
R908	0145042	MF 22K OHM +-5% 5W			**ICs**
⚠R909	0147658	WW 100 OHM +-5% 7W			
R910	0110377	MF 22K OHM +-5% 3W	IC0001	2001459	IC MN1872012AHHK1 (MICON)
R911	0113795	CF 68K OHM +-5% 1/2W	IC0002	2381111	IC M6M80021L
⚠R912	0148012	WW 0.10 OHM +-10% 2W	IC0003	2380391	IC UPD6326C
R913	0700038	CF 680 OHM +-5% 1/16W	IC0004	2380391	IC UPD6326C
R915	0100025	CF 22 OHM +-5% 1/8W	IC1101	2003411	IC UPC7905HF (LINEAR)
R917	0700033	CF 270 OHM +-5% 1/16W	IC1102	2003421	IC UPC7805AHF
R918	0187064	CF 910 OHM +-5% 1/16W	IC1103	2003421	IC UPC7805AHF
R919	0700061	CF 33K OHM +-5% 1/16W	IC1104	2003421	IC UPC7805AHF
R920	0700058	CF 22K OHM +-5% 1/16W	IC1201	2003201	IC STK4275 (LINEAR)
R921	0700041	CF 1K OHM +-5% 1/16W	IC1301	2003191	IC STK4274 (LINEAR)
R922	0700059	CF 27K OHM +-5% 1/16W	IC1326	2003191	IC STK4274 (LINEAR)
⚠R926	0147552	WW 33 OHM +-5% 5W	IC1351	2003191	IC STK4274 (LINEAR)
R927	0110273	MF 15K OHM +-5% 2W	IC2001	2361411	IC HD14520BP
R928	0700037	CF 560 OHM +-5% 1/16W	IC3001	2003811	IC M52472P (LINEAR)
R929	0700045	CF 2.2K OHM +-5% 1/16W	IC3005	2383342	IC LVA522SA-2 (LINEAR)
R930	0700058	CF 22K OHM +-5% 1/16W	IC3006	2917611	IC LA7016
R931	0700056	CF 15K OHM +-5% 1/16W	IC3007	2917611	IC LA7016
R932	0700027	CF 100 OHM +-5% 1/16W	IC301	2381832	IC HA11559NT
R935	0700061	CF 33K OHM +-5% 1/16W	IC3301	2383342	IC LVA522SA-2 (LINEAR)
R937	0700014	CF 10 OHM +-5% 1/16W	IC3302	2380391	IC UPD6326C
R938	0119693	MF 0.39 OHM +-5% 1W	IC4001	2003425	IC UPC7815AHF (LINEAR)
R939	0700054	CF 10K OHM +-5% 1/16W	IC4002	2916321	IC LA4280
R940	0148015	WW 18 OHM +-10% 2W	IC4003	2916321	IC LA4280
R941	0700047	CF 3.3K OHM +-5% 1/16W	IC4004	2366392	IC AN5836
R942	0119688	MF 0.22 OHM +-5% 1W	IC4005	2362605	IC BA4558

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SYMBOL NO.	PART NO.	DESCRIPTION	SYMBOL NO.	PART NO.	DESCRIPTION
IC4401	2000991	IC M51134P (LINEAR)	Q0012	2312941M	TR 2SC3413BC/1740S-QRTA
IC4402	2362605	IC BA4558	Q0013	2312941M	TR 2SC3413BC/1740S-QRTA
IC4403	2362605	IC BA4558	Q0014	2312941M	TR 2SC3413BC/1740S-QRTA
IC4405	2362605	IC BA4558	Q0015	2312941M	TR 2SC3413BC/1740S-QRTA
IC4406	2362605	IC BA4558	Q0016	2326216	TR 2SC3116 S/T
IC4407	2362605	IC BA4558	Q0017	2327753	TR 2SA1390 (C)/(D)
IC4408	2362651	IC HD14053BP	Q0018	2327753	TR 2SA1390 (C)/(D)
IC4409	2366301	IC UPD4052BC	Q0019	2312941M	TR 2SC3413BC/1740S-QRTA
IC4410	2362651	IC HD14053BP	Q0020	2312941M	TR 2SC3413BC/1740S-QRTA
IC4411	2380041	IC MN3008	Q0021	2312171	TR 2SC3852
IC4412	2380051	IC MN3101	Q0022	2327753	TR 2SA1390 (C)/(D)
IC4413	2362605	IC BA4558	Q0023	2312941M	TR 2SC3413BC/1740S-QRTA
IC4414	2362605	IC BA4558	Q0024	2312941M	TR 2SC3413BC/1740S-QRTA
IC4415	2916051	IC TA7629P	Q1101	2312941M	TR 2SC3413BC/1740S-QRTA
IC4416	2366392	IC AN5836	Q1276	2312941M	TR 2SC3413BC/1740S-QRTA
IC4427	2362605	IC BA4558	Q1277	2312941M	TR 2SC3413BC/1740S-QRTA
IC4601	2361362	IC HD14069UBP	Q1278	2312941M	TR 2SC3413BC/1740S-QRTA
IC4602	2362605	IC BA4558	Q1279	2312941M	TR 2SC3413BC/1740S-QRTA
IC4603	2366301	IC UPD4052BC	Q1280	2327753	TR 2SA1390 (C)/(D)
IC4604	2362605	IC BA4558	Q1401	2312941M	TR 2SC3413BC/1740S-QRTA
IC4605	2362651	IC HD14053BP	Q2001	2312941M	TR 2SC3413BC/1740S-QRTA
IC4606	2000331	IC LA2770	Q2002	2327753	TR 2SA1390 (C)/(D)
IC4607	2362651	IC HD14053BP	Q2003	2312941M	TR 2SC3413BC/1740S-QRTA
IC4608	2366392	IC AN5836	Q2004	2312941M	TR 2SC3413BC/1740S-QRTA
IC4609	2380391	IC UPD6326C	Q2005	2312941M	TR 2SC3413BC/1740S-QRTA
IC4610	2362641	IC HD14013BP	Q2006	2312941M	TR 2SC3413BC/1740S-QRTA
IC4611	2362605	IC BA4558	Q2007	2312941M	TR 2SC3413BC/1740S-QRTA
IC501	2916634	IC HA11511CNT-01	Q2008	2312941M	TR 2SC3413BC/1740S-QRTA
IC502	2003501	IC LA7697(DS24) (LINEAR)	Q2009	2327753	TR 2SA1390 (C)/(D)
IC503	23687211	IC AN5352	Q2010	2312941M	TR 2SC3413BC/1740S-QRTA
IC504	2910815	IC HD74HC00P	Q2011	2312941M	TR 2SC3413BC/1740S-QRTA
IC505	2382135	IC HA178M09	Q3007	2326021	TR 2SC1741S
IC601	2003541	IC LA7838 (LINEAR)	Q3018	2312941M	TR 2SC3413BC/1740S-QRTA
IC602	2003427	IC UP7824AHF (LINEAR)	Q3019	2312941M	TR 2SC3413BC/1740S-QRTA
⚠IC901	2380131	IC UPC1094C	Q302	2312941M	TR 2SC3413BC/1740S-QRTA
⚠IC902	2381344	IC SE130N	Q3023	2327753	TR 2SA1390 (C)/(D)
⚠IC903	2000465	IC PS2501-1 (KD/LD) (PHOTO COUPLER)	Q3024	2312941M	TR 2SC3413BC/1740S-QRTA
⚠IC904	2000465	IC PS2501-1 (KD/LD) (PHOTO COUPLER)	Q3025	2312941M	TR 2SC3413BC/1740S-QRTA
IC909	2000641	IC SI-3240C (LINEAR)	Q3026	2312941M	TR 2SC3413BC/1740S-QRTA
IC910	2000632	IC SI-3120CA	Q3027	2312941M	TR 2SC3413BC/1740S-QRTA
IC911	2003413	IC UP7912HF (LINEAR)	Q303	2312941M	TR 2SC3413BC/1740S-QRTA
IC913	2003416	IC UP7924HF (LINEAR)	Q304	2312941M	TR 2SC3413BC/1740S-QRTA
			Q305	2327753	TR 2SA1390 (C)/(D)
		TRANSISTORS	Q306	2327753	TR 2SA1390 (C)/(D)
			Q307	2327753	TR 2SA1390 (C)/(D)
Q0001	2320644	TR 2SC1213D	Q308	2312941M	TR 2SC3413BC/1740S-QRTA
Q0003	2312941M	TR 2SC3413BC/1740S-QRTA	Q309	2312941M	TR 2SC3413BC/1740S-QRTA
Q0004	2312941M	TR 2SC3413BC/1740S-QRTA	Q310	2312941M	TR 2SC3413BC/1740S-QRTA
Q0005	2327753	TR 2SA1390 (C)/(D)	Q311	2326021	TR 2SC1741S
Q0006	2312941M	TR 2SC3413BC/1740S-QRTA	Q312	2325702	TR 2SA854S Q/R
Q0007	2312941M	TR 2SC3413BC/1740S-QRTA	Q313	2312941M	TR 2SC3413BC/1740S-QRTA
Q0008	2312941M	TR 2SC3413BC/1740S-QRTA	Q314	2327753	TR 2SA1390 (C)/(D)
Q0009	2323521	TR 2SD789 B/C/D/E	Q315	2312941M	TR 2SC3413BC/1740S-QRTA
Q0010	2327783	TR 2SC3553 C/D	Q316	2312941M	TR 2SC3413BC/1740S-QRTA
Q0011	2327783	TR 2SC3553 C/D	Q317	2312941M	TR 2SC3413BC/1740S-QRTA

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SYMBOL NO.	PART NO.	DESCRIPTION
Q318	2327753	TR 2SA1390 (C)/(D)
Q321	2312941M	TR 2SC3413BC/1740S-QRTA
Q323	2327753	TR 2SA1390 (C)/(D)
Q324	2327753	TR 2SA1390 (C)/(D)
Q3301	2312941M	TR 2SC3413BC/1740S-QRTA
Q3302	2312941M	TR 2SC3413BC/1740S-QRTA
Q3303	2312941M	TR 2SC3413BC/1740S-QRTA
Q3304	2312941M	TR 2SC3413BC/1740S-QRTA
Q3305	2312941M	TR 2SC3413BC/1740S-QRTA
Q3306	2312941M	TR 2SC3413BC/1740S-QRTA
Q3307	2312941M	TR 2SC3413BC/1740S-QRTA
Q4003	2312941M	TR 2SC3413BC/1740S-QRTA
Q4004	2327753	TR 2SA1390 (C)/(D)
Q4005	2312941M	TR 2SC3413BC/1740S-QRTA
Q4006	2327753	TR 2SA1390 (C)/(D)
Q4007	2312941M	TR 2SC3413BC/1740S-QRTA
Q4008	2312941M	TR 2SC3413BC/1740S-QRTA
Q4010	2312941M	TR 2SC3413BC/1740S-QRTA
Q4011	2312941M	TR 2SC3413BC/1740S-QRTA
Q4013	2312941M	TR 2SC3413BC/1740S-QRTA
Q4014	2312941M	TR 2SC3413BC/1740S-QRTA
Q4017	2312941M	TR 2SC3413BC/1740S-QRTA
Q4018	2327783	TR 2SC3553 C/D
Q4019	2327753	TR 2SA1390 (C)/(D)
Q4020	2312941M	TR 2SC3413BC/1740S-QRTA
Q4021	2312941M	TR 2SC3413BC/1740S-QRTA
Q4022	2312941M	TR 2SC3413BC/1740S-QRTA
Q4023	2327783	TR 2SC3553 C/D
Q4024	2312171	TR 2SC3852
Q4028	2327753	TR 2SA1390 (C)/(D)
Q4029	2327753	TR 2SA1390 (C)/(D)
Q4030	2312941M	TR 2SC3413BC/1740S-QRTA
Q4031	2312941M	TR 2SC3413BC/1740S-QRTA
Q4401	2312941M	TR 2SC3413BC/1740S-QRTA
Q4408	2312941M	TR 2SC3413BC/1740S-QRTA
Q4409	2312941M	TR 2SC3413BC/1740S-QRTA
Q4410	2312941M	TR 2SC3413BC/1740S-QRTA
Q4411	2312941M	TR 2SC3413BC/1740S-QRTA
Q4412	2312941M	TR 2SC3413BC/1740S-QRTA
Q4413	2312941M	TR 2SC3413BC/1740S-QRTA
Q4414	2312941M	TR 2SC3413BC/1740S-QRTA
Q4415	2312941M	TR 2SC3413BC/1740S-QRTA
Q4601	2312941M	TR 2SC3413BC/1740S-QRTA
Q4602	2312941M	TR 2SC3413BC/1740S-QRTA
Q4603	2327753	TR 2SA1390 (C)/(D)
Q501	2312941M	TR 2SC3413BC/1740S-QRTA
Q502	2312941M	TR 2SC3413BC/1740S-QRTA
Q503	2312941M	TR 2SC3413BC/1740S-QRTA
Q504	2312941M	TR 2SC3413BC/1740S-QRTA
Q505	2312941M	TR 2SC3413BC/1740S-QRTA
Q507	2312941M	TR 2SC3413BC/1740S-QRTA
Q508	2312941M	TR 2SC3413BC/1740S-QRTA
Q509	2312941M	TR 2SC3413BC/1740S-QRTA
Q601	2327753	TR 2SA1390 (C)/(D)
Q602	2312941M	TR 2SC3413BC/1740S-QRTA
Q603	2312941M	TR 2SC3413BC/1740S-QRTA
Q7001	2312171	TR 2SC3852
⚠Q701	2326216	TR 2SC3116 S/T
Q707	2312941M	TR 2SC3413BC/1740S-QRTA
Q708	2327753	TR 2SA1390 (C)/(D)
Q710	2323123	TR 2SD1133 (D)
Q711	2327753	TR 2SA1390 (C)/(D)
Q713	2312941M	TR 2SC3413BC/1740S-QRTA
Q714	2312941M	TR 2SC3413BC/1740S-QRTA
⚠Q777	2315273	TRANSISTOR 2SC4589-04
Q801B	2312651	TR 2SC3503 C/D/E/F
Q801G	2312651	TR 2SC3503 C/D/E/F
Q801R	2312651	TR 2SC3503 C/D/E/F
Q802B	2312941M	TR 2SC3413BC/1740S-QRTA
Q802G	2312941M	TR 2SC3413BC/1740S-QRTA
Q802R	2312941M	TR 2SC3413BC/1740S-QRTA
Q803B	2327753	TR 2SA1390 (C)/(D)
Q803G	2327753	TR 2SA1390 (C)/(D)
Q803R	2327753	TR 2SA1390 (C)/(D)
⚠Q902	2390623	TRANSISTOR 2SK1181(LF714A)
⚠Q903	2323782	TR 03P2M
Q904	2321112	TR 2SA778A
Q905	2327753	TR 2SA1390 (C)/(D)
⚠Q906	2327753	TR 2SA1390 (C)/(D)
⚠Q907	2312941M	TR 2SC3413BC/1740S-QRTA
Q908	2327753	TR 2SA1390 (C)/(D)
Q909	2312941M	TR 2SC3413BC/1740S-QRTA
⚠Q910	2323782	TR 03P2M
		DIODES
D0001	23383211	DI 1SS270
D0002	23383211	DI 1SS270
D0003	23383211	DI 1SS270
D0004	23383211	DI 1SS270
D0005	23383211	DI 1SS270
D0006	23383211	DI 1SS270
D0007	23383211	DI 1SS270
D0008	23383211	DI 1SS270
D0009	23383211	DI 1SS270
D0015	23383211	DI 1SS270
D0017	23383211	DI 1SS270
D0018	23383211	DI 1SS270
D0019	23383211	DI 1SS270
D0022	23383211	DI 1SS270
D0023	23383211	DI 1SS270
D0024	23383211	DI 1SS270
D0026	23383211	DI 1SS270
D0028	23383211	DI 1SS270
D0030	23383211	DI 1SS270
D0031	23383211	DI 1SS270
D0032	23383211	DI 1SS270
D0033	23383211	DI 1SS270
D0034	23383211	DI 1SS270
D0035	23383211	DI 1SS270

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SYMBOL NO.	PART NO.	DESCRIPTION	SYMBOL NO.	PART NO.	DESCRIPTION
D0036	23383211	DI 1SS270	D4013	23383211	DI 1SS270
D0037	23383211	DI 1SS270	D4014	23383211	DI 1SS270
D0038	23383211	DI 1SS270	D4015	23394911	DI AM01Z
D0039	23383211	DI 1SS270	D4401	23383211	DI 1SS270
D0040	23383211	DI 1SS270	D4402	23383211	DI 1SS270
D0041	23383211	DI 1SS270	D4403	23383211	DI 1SS270
D1101	23383211	DI 1SS270	D4404	23383211	DI 1SS270
D1102	23383211	DI 1SS270	D4405	23383211	DI 1SS270
D1276	23383211	DI 1SS270	D4601	23383211	DI 1SS270
D1301	23394911	DI AM01Z	D4602	23383211	DI 1SS270
D1401	2339691	LED SLH-56VC77F	D4603	23383211	DI 1SS270
D2001	23383211	DI 1SS270	D4604	23383211	DI 1SS270
D2002	23383211	DI 1SS270	D4605	23383211	DI 1SS270
D2003	23383211	DI 1SS270	D4606	23383211	DI 1SS270
D2004	23383211	DI 1SS270	D501	23383211	DI 1SS270
D2005	23383211	DI 1SS270	D502	23383211	DI 1SS270
D2006	23383211	DI 1SS270	D503	23383211	DI 1SS270
D2007	23383211	DI 1SS270	D507	23383211	DI 1SS270
D2008	23383211	DI 1SS270	D508	23383211	DI 1SS270
D2009	23383211	DI 1SS270	D651	2338902	DI DFM1SA4
D2010	23383211	DI 1SS270	D652	2338902	DI DFM1SA4
D2011	23383211	DI 1SS270	D653	23394911	DI AM01Z
D2012	23383211	DI 1SS270	D654	23394911	DI AM01Z
D2013	23383211	DI 1SS270	D655	23383211	DI 1SS270
D2014	23383211	DI 1SS270	D657	23383211	DI 1SS270
D3001	23383211	DI 1SS270	D658	23394911	DI AM01Z
D3002	23383211	DI 1SS270	D659	23383211	DI 1SS270
D3003	23383211	DI 1SS270	D660	23394911	DI AM01Z
D3004	23383211	DI 1SS270	D7001	23383211	DI 1SS270
D3005	23383211	DI 1SS270	D7002	23383211	DI 1SS270
D3006	23383211	DI 1SS270	D7003	23383211	DI 1SS270
D301	23383211	DI 1SS270	D7004	23383211	DI 1SS270
D3012	23383211	DI 1SS270	⚠D701	2330564	DI V11N
D3013	23383211	DI 1SS270	⚠D702	2338902	DI DFM1SA4
D302	23383211	DI 1SS270	⚠D703	2330564	DI V11N
D303	23383211	DI 1SS270	D705	2338902	DI DFM1SA4
D304	23383211	DI 1SS270	⚠D706	2348511	DI ODE RS3FS
D305	23383211	DI 1SS270	D707	2339531	DI RG4A
D306	23383211	DI 1SS270	D709	23383211	DI 1SS270
D307	23383211	DI 1SS270	D710	2334581	DI ES1A
D308	23383211	DI 1SS270	⚠D711	2330564	DI V11N
D309	23383211	DI 1SS270	D728	23383211	DI 1SS270
D310	23383211	DI 1SS270	D801B	23383211	DI 1SS270
D311	23383211	DI 1SS270	D801G	23383211	DI 1SS270
D312	23383211	DI 1SS270	D801R	23383211	DI 1SS270
D313	23383211	DI 1SS270	⚠D901	2342061	DI D3SB(A)60
D316	23383211	DI 1SS270	D901S	23394911	DI AM01Z
D317	23383211	DI 1SS270	D902	23394911	DI AM01Z
D3301	23383211	DI 1SS270	D903	23394911	DI AM01Z
D4002	23383211	DI 1SS270	D906	2398611	DI 1SS254
D4004	23383211	DI 1SS270	D907	2338532	DI EG-01A
D4009	23383211	DI 1SS270	D908	23394811	DI AS01Z
D4010	23383211	DI 1SS270	⚠D909	2338944	DI FML-G12S(F)
D4011	23383211	DI 1SS270	⚠D910	2338932	DI FMG-G36S
D4012	23383211	DI 1SS270	D911	23383211	DI 1SS270

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SYMBOL NO.	PART NO.	DESCRIPTION
⚠D925	2338944	DI FML-G12S(F)
⚠D926	2338944	DI FML-G12S(F)
⚠D927	2338944	DI FML-G12S(F)
⚠D928	2338944	DI FML-G12S(F)
D929	23383211	DI 1SS270
D930	23383211	DI 1SS270
D931	23394911	DI AM01Z
D932	23394911	DI AM01Z
D937	23394911	DI AM01Z
D938	23394911	DI AM01Z
D939	23383211	DI 1SS270
ZD0001	2331785	DIODE-ZENER HZ4(B2)
ZD0002	2331849	ZD HZ-12(C3)
ZD0003	2331845	ZD HZ12 (B2)
ZD0004	2331804	ZD HZ6 (B1)
ZD0005	2331804	ZD HZ6 (B1)
ZD0006	2331833	ZD HZ11(A)3
ZD0007	2339242	ZD HZS33-2L
ZD0008	2331799	ZD HZ5(C)3
ZD0009	2331799	ZD HZ5(C)3
ZD0010	2331799	ZD HZ5(C)3
ZD0011	2331799	ZD HZ5(C)3
ZD0012	2331799	ZD HZ5(C)3
ZD0014	2331819	ZD HZ7(C)3
ZD0015	2331799	ZD HZ5(C)3
ZD0018	2331799	ZD HZ5(C)3
ZD0019	2331804	ZD HZ6 (B1)
ZD0020	2339825	ZD HZS4B2
ZD0021	2339839	ZD HZS5C3
ZD1201	2334324	ZD RD36EB3
ZD1202	2334324	ZD RD36EB3
ZD1226	2334324	ZD RD36EB3
ZD1227	2334324	ZD RD36EB3
ZD1251	2334324	ZD RD36EB3
ZD1252	2334324	ZD RD36EB3
ZD1301	2334324	ZD RD36EB3
ZD1302	2334324	ZD RD36EB3
ZD1311	2334324	ZD RD36EB3
ZD1312	2334324	ZD RD36EB3
ZD1326	2334324	ZD RD36EB3
ZD1327	2334324	ZD RD36EB3
ZD1336	2334324	ZD RD36EB3
ZD1337	2334324	ZD RD36EB3
ZD1351	2334324	ZD RD36EB3
ZD1352	2334324	ZD RD36EB3
ZD1361	2334324	ZD RD36EB3
ZD1362	2334324	ZD RD36EB3
ZD1401	2339839	ZD HZS5C3
ZD3001	2339868M	ZD HZS9C2TA
ZD3002	2339868M	ZD HZS9C2TA
ZD3003	2339868M	ZD HZS9C2TA
ZD301	2331781	ZD HZ4 (A1)
ZD302	2339868M	ZD HZS9C2TA
ZD303	2339868M	ZD HZS9C2TA
ZD304	2339868M	ZD HZS9C2TA
ZD305	2339868M	ZD HZS9C2TA
ZD306	2339868M	ZD HZS9C2TA
ZD307	2339868M	ZD HZS9C2TA
ZD308	2339211	ZD HZS24-1L
ZD309	2339868M	ZD HZS9C2TA
ZD312	2339831M	DIODE-ZENER HZS5A1-M
ZD313	2331849	ZD HZS30-1L
ZD314	2339231	ZD RD30EB2
ZD315	2331849	ZD HZ-12(C3)
ZD3301	2331849	ZD HZ-12(C3)
ZD3302	2331799	ZD HZ5(C)3
ZD3303	2331799	ZD HZ5(C)3
ZD3304	2331799	ZD HZ5(C)3
ZD3305	2331799	ZD HZ5(C)3
ZD3306	2331799	ZD HZ5(C)3
ZD4001	2331833	ZD HZ11(A)3
ZD4002	2334283	ZD RD24EB2
ZD4003	2331849	ZD HZ-12(C3)
ZD4004	2331849	ZD HZ-12(C3)
ZD4005	2331849	ZD HZ-12(C3)
ZD4006	2331849	ZD HZ-12(C3)
ZD4007	2331849	ZD HZ-12(C3)
ZD4008	2331849	ZD HZ-12(C3)
ZD4009	2331849	ZD HZ-12(C3)
ZD4010	2331831	ZD HZ-11 (A1)
ZD4012	2331833	ZD HZ11(A)3
ZD4401	2339833M	DIODE-ZENER HZS5A3
ZD4404	2330631	ZD HZ7(A)
ZD4601	2331795	ZD HZ-5 (B2)
ZD501	2331828M	ZD HZ-9C2 TA
ZD502	2331828M	ZD HZ-9C2 TA
ZD503	2331828M	ZD HZ-9C2 TA
ZD601	2331828M	ZD HZ-9C2 TA
ZD602	2334323M	DIODE-ZENER RD36EB2
ZD603	2331828M	ZD HZ-9C2 TA
ZD651	2331807	ZD HZ-6 (C1)
ZD652	2331154	ZD HZ12 (A1-3/B1-3/C1-3)
ZD653	2334305	ZD RD30E (B4)
ZD7001	2331828M	ZD HZ-9C2 TA
ZD7002	2339846M	ZD HZS6B3TA
ZD7003	2339825	ZD HZS4B2
ZD7004	2331849	ZD HZ-12(C3)
ZD7005	2331828M	ZD HZ-9C2 TA
ZD709	2339801	ZD HZS2B1
⚠ZD710	2335461	ZD HZ24 (2L)
ZD712	2334334	ZD RD39EB3
ZD801B	2331827	ZD HZ-9 (C1)
ZD801G	2331827	ZD HZ-9 (C1)
ZD801R	2331827	ZD HZ-9 (C1)
ZD901	2339031	ZD HZS6C1L
ZD903	2334324	ZD RD36EB3
ZD904	2343111	ZD HZ16-1L
ZD906	2339031	ZD HZS6C1L
ZD913	2334283	ZD RD24EB2
ZD916	2339231	ZD HZS30-1L

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SYMBOL NO.	PART NO.	DESCRIPTION
		TRANSFORMERS
⚠T701	2260291	HOLIZONTAL DRIVE TRANSFORMER
⚠T702	2436491	FLYBACK TRANSFORMER C90LUIP-RC
⚠T703	2272762	SPC TRANSFORMER
⚠T901	2213993	POWER TRANSFORMER
⚠T902	2215592	SWITCHING TRANSFORMER
⚠T903	2215861	POWER TRANSFORMER
		FUSES
⚠F901	2721053	UL FUSE 5A
⚠F903	2721052	UL FUSE 4A
⚠F904	2721052	UL FUSE 4A
⚠F905	2721051	UL FUSE 1.6A
		COMPOUND COMPONENTS
CP0001	2793411	RESISTORS ARRAY
CP0002	2793411	RESISTORS ARRAY
CP0003	2793411	RESISTORS ARRAY
CP0004	2793421	RESISTORS ARRAY
CP1401	2574761	REMOTE CONTROL RECEIVER SPS-409-1G
CP2501	2375223	CHIP BOARD ASS'Y HC2013
⚠CP901	2793312	CAPRISTOR
⚠CP903	2793312	CAPRISTOR
MF0001	2163972	CERAMIC FILTER 6MHZ
MF301	2163971	CERAMIC FILTER
MF7001	2786683	CERAMIC OSCILLATOR
		COILS
L0001	2120482	FILTER COIL 100 MICRO H +-10%
L0002	2120482	FILTER COIL 100 MICRO H +-10%
L0003	2120482	FILTER COIL 100 MICRO H +-10%
L0004	2120482	FILTER COIL 100 MICRO H +-10%
L0005	2122253	LA AXIAL COIL 100 MICRO H
L1101	2123469M	FERRITE BEADS CORE READ 2.3
L1102	2123469M	FERRITE BEADS CORE READ 2.3
L1291	2272753	FOCUS CHOKE COIL
L1292	2272753	FOCUS CHOKE COIL
L2401	2122929	LAL AXIAL COIL
L2402	2122929	LAL AXIAL COIL
L2403	2122929	LAL AXIAL COIL
L2404	2122929	LAL AXIAL COIL
L2405	2122929	LAL AXIAL COIL
L2406	2122929	LAL AXIAL COIL
L2409	2122929	LAL AXIAL COIL
L2410	2122929	LAL AXIAL COIL
L3002	2120482	FILTER COIL 100 MICRO H +-10%
L3004	2122951	LA AXIAL COIL 39 MICRO H +-10%
L3005	2120482	FILTER COIL 100 MICRO H +-10%
L3006	2120482	FILTER COIL 100 MICRO H +-10%
L3007	2120482	FILTER COIL 100 MICRO H +-10%
L3008	2120482	FILTER COIL 100 MICRO H +-10%
L301	2120482	FILTER COIL 100 MICRO H +-10%
L3011	2120482	FILTER COIL 100 MICRO H +-10%
L3012	2120482	FILTER COIL 100 MICRO H +-10%
L302	2120482	FILTER COIL 100 MICRO H +-10%
L304	2122956	LA AXIAL COIL 100 MICRO H +-10%
L3301	2120482	FILTER COIL 100 MICRO H +-10%
L3302	2120482	FILTER COIL 100 MICRO H +-10%
L3303	2120482	FILTER COIL 100 MICRO H +-10%
L3304	2120482	FILTER COIL 100 MICRO H +-10%
L3305	2120482	FILTER COIL 100 MICRO H +-10%
L501	2122951	LA AXIAL COIL 39 MICRO H +-10%
L651	2120482	FILTER COIL 100 MICRO H +-10%
L701	2121181	FILTER COIL
L703	2124181	CHOKE COIL
L706	2124511	LINEARITY COIL
L707	2122095	FILTER COIL 27 MICRO H
L708	2120482	FILTER COIL 100 MICRO H +-10%
L709	2122094	FIXED COIL
L711	2123469M	FERRITE BEADS CORE READ 2.3
L802B	2122255	LA AXIAL COIL 150 MICRO H
L802G	2122255	LA AXIAL COIL 150 MICRO H
L802R	2122255	LA AXIAL COIL 150 MICRO H
⚠L901	2229052	LINE FILTER 3.5A
⚠L902	2229052	LINE FILTER 3.5A
⚠L903	2274556	FILTER COIL
⚠L904	2229052	LINE FILTER 3.5A
⚠L905	2229052	LINE FILTER 3.5A
L906	2123469M	FERRITE BEADS CORE READ 2.3
L907	2122653	FERRITE BEADS CORE
L908	2123469M	FERRITE BEADS CORE READ 2.3
L909	2122653	FERRITE BEADS CORE
L910	2122653	FERRITE BEADS CORE
L911	2123469M	FERRITE BEADS CORE READ 2.3
L915	2123469M	FERRITE BEADS CORE READ 2.3
L916	2122653	FERRITE BEADS CORE
L918	2122653	FERRITE BEADS CORE
L919	2122653	FERRITE BEADS CORE
L920	2121676	FIXED COIL
L922	2161152	FILTER COIL
L929	2121674	LINE FILTER COIL
L952	2161152	FILTER COIL
L953	2161152	FILTER COIL
L954	2161152	FILTER COIL
L955	2161152	FILTER COIL
L969	2123469M	FERRITE BEADS CORE READ 2.3
L970	2123469M	FERRITE BEADS CORE READ 2.3
L971	2123469M	FERRITE BEADS CORE READ 2.3
L972	2123469M	FERRITE BEADS CORE READ 2.3
L973	2123469M	FERRITE BEADS CORE READ 2.3
L974	2123469M	FERRITE BEADS CORE READ 2.3
L975	2123469M	FERRITE BEADS CORE READ 2.3
L981	2122956	LA AXIAL COIL 100 MICRO H +-10%
L982	2122956	LA AXIAL COIL 100 MICRO H +-10%

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SYMBOL NO.	PART NO.	DESCRIPTION
L983	2123469M	FERRITE BEADS CORE READ 2.3
L984	2161152	FILTER COIL
		SWITCHIES
S1401	2631863	PUSH SWITCH
S1402	2983111	3P JACK WITH S TERMINAL
S2001	2621031	SLIDE SWITCH
S301	2621051	SLIDE SWITCH
		MISCELLANEOUS
1	3394291	MIRROR (HHEA MD)
2	3700971	LEAD CLAMP
3	3209675	CONTROL PANEL ASS'Y
4	4618171	RUBBER SPACER A
5	4305083	LENS-CRT UNIT METAL SUPPORT
6	4305082	LENS-CRT UNIT METAL SUPPORT R
7	4524911	HEXAGON FLANGEHEAD 4X12
8	3785043	PUSH LOCK A
9	4159427	3X10 TAPPING SCREW WITH WASHER
10	8781440	3X10 TAPPING SCREW
11	4518772	3X12 TNE
12	3811195	POWER KNOB
13	3332453	SPRING FOR KNOB
14	3821102	DOOR ASS'Y
15	3716742	PLASTIC HOLDER
16	3746482	WIRE CLAMP
17	4520883	M3X12 SCREW WITH WASHER
19	3209494	TERMINAL BOARD ASS'Y
20	4137975	4X16 ZA R SCREW
18	4137976	4 x 20 TAPPING SCREW WITH WASHER
21	4329271	WASHER (F)
22	3142424	CABINET ASS'Y K (HHEA MD)
23	4522901	NUT
25	4519503	3X12 TAPPING SCREW
26	4520232	4X16 DT SCREW
27	3742021	LEAD HOLDER(CABINET)
28	4298641	BOARD FOR PANEL
29	3447251	UNIT METAL COVER (A)
30	3447252	UNIT METAL COVER (B)
36	4336491	CASTER METAL
31	3169711	REAR BOARD U (HHEA MD)
32	3169712	REAR BOARD M (HHEA MD)
33	4520771	4X18 TAPPING SCREW WITH WASHER
34	3163571	REAR COVER (HHEA MD)
35	3169722	REAR BOARD L (HHEA MD)
38	3727972	HOLDER-AC LINE CORD
39	3103159	SCREEN FRAME U (HHEA MD)
40	3103034	SCREEN FRAME V (HHEA MD)
41	3830492	FRAME CORNER PIECE
42	4349011	FRAME COVER METAL
43	4527631	4X18 TAPPING SCREW
44	3189487	SCREEN ASS'Y (HHEA MD)
⚠ 45	4866956	LENS CRT BLOCK ASS'Y B (HHEA MD)
⚠ 46	4866955	LENS CRT BLOCK ASS'Y G (HHEA MD)
⚠ 47	4866954	LENS CRT BLOCK ASS'Y R (HHEA MD)
	2720221	FUSE HOLDER
	3763752	SK BINDER
	4520881	M3X8 SCREW WITH WASHER
	4520885	M3X16 SCREW
	4518772	3 x 12 TNE
⚠	2784342	CONDENSER COVER
	4770601	3 FLANGE NUT
	3731081	PURSE LOCK 10
	3737101	PURSE LOCK 15
	2940781	FERRITE CLAMP
	4159427	3 x 10 TAPPING SCREW WITH WASHER
	4159425	3X16 TAPPING SCREW
	3746482	WIRE CLAMP
	4526322	M8X10 SCREW
	4524913	HEXAGON FLANGEHEAD 4X12 R
⚠	3393503	LENS S-ASS'Y HCD RG
	3812401	LENS DELTA 12R AB (HHEA MD)
	4526102	4X18 SCREW
	3332021	EARTH SPRING
	4159411	3X8 KNURL TAPPING SCREW
	8815124	WASHER,LOCK 3MM
	3763751	SK BINDER
	8821114	NUT 3
DL3001	2165801	DELAY LNE SDL4242
E	2771894	FERRITE BEADS CORE 006
⚠EANT	2427365	ANTENNA SWITCH ASS'Y ASB-311E-
EB	2771892	FERRITE BEADS CORE 004
EC	2771893	FERRITE BEADS CORE
ECB	2661753	PIN PLUG WITH BASE
ECD	2902263	4P SUB MINI PLUG PIN
ECG	2661753	PIN PLUG WITH BASE
ECR	2661753	PIN PLUG WITH BASE
ED	2661753	PIN PLUG WITH BASE
ED	2771893	FERRITE BEADS CORE
EDA	2661751	PLUG PIN WITH BASE
EDI	2902266	7P SUB MINI PLUG PIN
EDI	2902266	7P SUB MINI PLUG PIN
EDT	2663821	2P PLUG PIN
EFO	2661753	PIN PLUG WITH BASE
EIE	2663821	2P PLUG PIN
EJ1G	2663821	2P PLUG PIN
EMB	2665272	4P PLUG PIN WITH BASE
EMG	2665272	4P PLUG PIN WITH BASE
EMR	2665272	4P PLUG PIN WITH BASE
ESL	2661944	CONNECTOR
ETS	2663821	2P PLUG PIN
E1	2983082	OP PINJACK WITH S TERMINAL
⚠E101	2444871	DEFLECTION YOKE(HHEA MD)
⚠E101G	2444872	DEFLECTION YOKE (HHEA MD)
E103B	3810831	MAGNET SPACER
E103G	3810831	MAGNET SPACER
E103R	3810831	MAGNET SPACER
E104	2774962	BEAM ALINEMENT MAGNET
⚠E105	2774973	FOCUS MAGNET

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SYMBOL NO.	PART NO.	DESCRIPTION	SYMBOL NO.	PART NO.	DESCRIPTION
E155	4524911	HEXAGON FLANGEHEAD 4X12			
E2	2983388	9P PINJACK WITH SWITCH			
E202	2982471	300-75 VHF ADAPTER			
E3	2983082	OP PINJACK WITH S TERMINAL			
E301	2573416	REMOTE CONTROL TRANSMITTER CLU-950GR (HHEA MD)			
E302	2573622	REMOTE CONTROL TRANSMITTER CLU-609 (HHEA MD)			
E4	2983387	5P PIN JACK			
E4801	2983011	4P PUSH TERMINAL			
⚠E801B	2953344	CPT SOCKET			
⚠E801G	2953343	CRT SOCKET			
⚠E801R	2953343	CRT SOCKET			
E802	2661756	1P PLUG PIN WITH BASE			
⚠E9001	2972522	POWER SUPPLY CORD			
⚠E9002	3772201	AC CORD HOLDER			
⚠E9003	3739671	CORD HOLDER			
⚠FE0001	2429341	FRONTEND V8-A58FT			
M301	2375233	CHIP BOARD HC3023			
M302	2375251	CHIP BOARD HC3031			
M4001	2378211	MODULE MC-7001(B)			
PDA	2661941	L TYPE PLUG WITH BASE2P			
PPD	2663134	PLUG PIN WITH BASE (5P)			
PP31	2661751	PLUG PIN WITH BASE			
⚠RL901	2640574	RELAY			
SG801B	2340039	SPARK GAP			
SG801G	2340039	SPARK GAP			
SG801R	2340039	SPARK GAP			
SG802B	2340039	SPARK GAP			
SG802G	2340039	SPARK GAP			
SG802R	2340039	SPARK GAP			
⚠SP401	2412921	SPEAKER 160MM			
⚠SP402	2412921	SPEAKER 160MM			
⚠SP403	2414941	SPEAKER (HHEA MD)			
⚠SP404	2414941	SPEAKER (HHEA MD)			
W811R	2692461	FOCUS LEAD WIRE (HHEA MD)			
X501	2791501	CRYSTAL HC-49/U			

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